

# Ceiling Series CLI User Guide

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L2 PRO PoE Switch

Release A2

# ABOUT THIS GUIDE

- PURPOSE** This guide gives specific information on how to operate CLI to manage this switch.
- AUDIENCE** The guide is intended for use by network administrators who are responsible for operating and maintaining network equipment; consequently, it assumes a basic working knowledge of general switch functions, Internet Protocol (IP), and SSH Protocol.

## Revision History

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|------------------------|-------------------|-----------------|
| <b>Initial Release</b> | <b>2022/01/03</b> | <b>A1</b>       |
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|                        |                   |                 |
|                        |                   |                 |

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The following description is the brief of the network connection.

-- Attach the RJ45 serial port on the switch's front panel which used to connect to the switch for telnet configuration

-- At "Com Port Properties" Menu, configure the parameters as below: (see the next section)

|              |        |
|--------------|--------|
| Baud rate    | 115200 |
| Stop bits    | 1      |
| Data bits    | 8      |
| Parity       | N      |
| Flow control | none   |

## 1-1 Login

The command-line interface (CLI) is a text-based interface. User can access the CLI through either a direct serial connection to the device or a Telnet session (Default IP address: **192.168.1.1**). The default user and password to login into the Managed Switch are listed below:

**Username:** admin

**Password:** admin

After you login successfully, the prompt will be shown as "<sys\_name>#". See the following figures. It means you behave as an administrator and have the privilege for setting the Managed Switch. If log as not the administrator, the prompt will be shown as "<sys\_name>>", it means you behave as a guest and are only allowed for setting the system under the administrator. Each CLI command has its privilege

```
Username: admin
Password: admin
C62-050-30-A#
```

## 1-2 Commands of CLI

The CLI is divided into several modes. If a user has enough privilege to run a particular command, the user has to run the command in the correct mode. To see the commands of the mode, please input “?” after the system prompt, then all commands will be listed in the screen. The command modes are listed as follows:

Command Modes

| MODE            | PROMPT                        | COMMAND FUNCTION IN THIS MODE                           |
|-----------------|-------------------------------|---------------------------------------------------------|
| exec            | <sys_name>#                   | Display current configuration, diagnostics, maintenance |
| config          | <sys_name>(config)#           | Configure features other than those below               |
| config-if       | <sys_name>(config-interface)# | Configure ports                                         |
| config-if-range | <sys_name>(config-if-range)#  | Configure a range of ports                              |
| config-vlan     | <sys_name>(config-vlan)#      | Configure static vlan                                   |

Commands reside in the corresponding modes could run only in that mode. If a user wants to run a particular command, the user has to change to the appropriate mode. The command modes are organized as a tree, and users start to in enable mode. The following table explains how to change from one mode to another.

Change Between Command Modes

| MODE                   | ENTER MODE                                   | LEAVE MODE |
|------------------------|----------------------------------------------|------------|
| exec                   | --                                           | --         |
| config                 | Configure terminal                           | exit       |
| config-interfcae       | Interface <port-type> <port-number>          | exit       |
| config-interfcae-range | Interface range <port-type> <port-type-list> | exit       |
| config-vlan            | vlan <vlan_list>                             | exit       |

## 1-3 Global Commands of CLI

```
C62-050-30-A# ?
clear          Reset functions
clock         Manage the system clock
configure     Configuration Mode
copy         Copy from one file to another
debug        Debug Options
delete       Delete a file from the flash file system
disable     Turn off privileged mode command
end         End current mode and change to enable mode
exit       Exit current mode and down to previous mode
no         Negate command
ping      Send ICMP ECHO_REQUEST to network hosts
reboot    Halt and perform a cold restart
restore-defaults Restore to default
save     Save running configuration to flash
show    Show running system information
ssl     Setup SSL host keys
terminal Terminal configuration
traceroute Trace route to network hosts
```

**Table : CLEAR Commands**

| <b>Command</b> | <b>Function</b>                               |
|----------------|-----------------------------------------------|
| interfaces     | Interface status and configuration            |
| ip             | IP information                                |
| lacp           | LACP Configuration                            |
| line           | To identify a specific line for configuration |
| lldp           | Reset lldp information                        |
| logging        | Log Configuration                             |
| mac            | MAC configuration                             |
| port-security  | Port Security                                 |
| power          | Power-over-Ethernet Configuration             |
| spanning-tree  | Spanning-tree configuration                   |



## 2-1 interfaces

Clear interface status and configuration.

### Syntax

**clear interfaces** GigabitEthernet <port\_list> counters

**clear interfaces** LAG <lag\_list> counters

### Parameter

|                        |                                         |                 |
|------------------------|-----------------------------------------|-----------------|
| <b>GigabitEthernet</b> | Gigabit ethernet interface to configure |                 |
|                        | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z |
| <b>LAG</b>             | IEEE 802.3 Link Aggregation interface   |                 |
|                        | <b>&lt;lag_list&gt;</b>                 | LAG List X-Y,Z  |

### Example

```
C62-050-30-A# clear interfaces GigabitEthernet 1-3,6 counters
C62-050-30-A# clear interfaces LAG 2-4,6 counters
C62-050-30-A#
```

## 2-2 ip

Clear IP information.

### Syntax

**clear ip igmp snooping** groups {<cr>|<dynamic>|<static>}

**clear ip igmp snooping** statistics

### Parameter

|                   |                                |                |
|-------------------|--------------------------------|----------------|
| <b>groups</b>     | IPv4 multicast groups          |                |
|                   | <b>&lt;cr&gt;</b>              |                |
|                   | <b>dynamic</b>                 | dynamic groups |
|                   | <b>static</b>                  | static groups  |
| <b>statistics</b> | Clear IGMP snooping statistics |                |

### Example

```
C62-050-30-A# clear ip igmp snooping statistics
C62-050-30-A# clear ip igmp snooping groups static
C62-050-30-A# clear ip igmp snooping groups dynamic
C62-050-30-A#
```

## 2-3 lacp

Clear LACP Configuration.

### Syntax

**Clear lacp counters**

### Parameter

|                 |            |
|-----------------|------------|
| <b>counters</b> | LAG number |
|-----------------|------------|

### Example

```
C62-050-30-A# clear lacp counters
C62-050-30-A#
```

## 2-4 line

Clear a specific line for configuration.

### Syntax

**clear line telnet**

### Parameter

|               |                             |
|---------------|-----------------------------|
| <b>telnet</b> | Telnet daemon configuration |
|---------------|-----------------------------|

### Example

```
C62-050-30-A# clear line telnet
C62-050-30-A#
```

## 2-5 lldp

Clear lldp information.

### Syntax

**clear lldp** global statistics

**clear lldp** interfaces GigabitEthernet <port\_list> statistics

**clear lldp** interfaces LAG <lag\_list> statistics

### Parameter

|                         |                                           |                                         |                 |
|-------------------------|-------------------------------------------|-----------------------------------------|-----------------|
| <b>global</b>           | Clear LLDP statistics                     |                                         |                 |
|                         | <b>statistics</b>                         |                                         |                 |
| <b>interfaces</b>       | Clear LLDP statistics for specified ports |                                         |                 |
|                         | <b>GigabitEthernet</b>                    | Gigabit ethernet interface to configure |                 |
|                         |                                           | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z |
|                         | <b>LAG</b>                                | IEEE 802.3 Link Aggregation interface   |                 |
| <b>&lt;lag_list&gt;</b> |                                           | LAG List X-Y,Z                          |                 |

### Example

```
C62-050-30-A# clear lldp global statistics
C62-050-30-A# clear lldp interfaces GigabitEthernet 1-3,6 statistics
C62-050-30-A# clear lldp interfaces LAG 1-3,6 statistics
C62-050-30-A#
```

## 2-6 logging

Clear log configuration.

### Syntax

**clear logging** {<buffered>|<file>}

### Parameter

|                 |                  |
|-----------------|------------------|
| <b>buffered</b> | Buffered logging |
| <b>file</b>     | File logging     |

### Example

```

C62-050-30-A# clear logging buffered
C62-050-30-A# clear logging file
C62-050-30-A#

```

## 2-7 mac

Clear MAC configuration.

### Syntax

**clear mac address-table dynamic**

**clear mac address-table dynamic** interface GigabitEthernet <port\_list>

**clear mac address-table dynamic** interface LAG <lag\_list>

**clear mac address-table dynamic** vlan <vlan\_id>

### Parameter

|                  |                                    |                                         |                 |
|------------------|------------------------------------|-----------------------------------------|-----------------|
| <b>interface</b> | Interface status and configuration |                                         |                 |
|                  | <b>GigabitEthernet</b>             | Gigabit ethernet interface to configure |                 |
|                  |                                    | <port_list>                             | Port List X-Y,Z |
|                  | <b>LAG</b>                         | IEEE 802.3 Link Aggregation interface   |                 |
| <lag_list>       |                                    | LAG List X-Y,Z                          |                 |
| <b>vlan</b>      | VLAN configuration                 |                                         |                 |
|                  | <vlan_id>                          | VLAN ID (1-4094)                        |                 |

### Example

```

clear mac address-table dynamic
C62-050-30-A# clear mac address-table dynamic interfaces GigabitEthernet 1-3,6
C62-050-30-A# clear mac address-table dynamic interfaces LAG 1-3,6
C62-050-30-A# clear mac address-table dynamic vlan 2
C62-050-30-A#

```

## 2-8 port-security

Clear port security configuration.

### Syntax

**clear port-security** all {<cr>|<address>|<interface>}

**clear port-security** configured {<cr>|<address>|<interface>}

**clear port-security** dynamic {<cr>|<address>|<interface>}

**clear port-security** sticky {<cr>|<address>|<interface>}

#### Parameter

|                   |                                                      |
|-------------------|------------------------------------------------------|
| <b>all</b>        | All secure mac addresses                             |
| <b>configured</b> | Configured secure mac addresses                      |
| <b>dynamic</b>    | Secure MAC address auto-learned by hardware          |
| <b>sticky</b>     | Secure MAC address either auto-learned or configured |

#### Example

```
C62-050-30-A# clear port-security all
C62-050-30-A# clear port-security all address 68:8D:B6:00:00:01
C62-050-30-A# clear port-security all interface GigabitEthernet 1
C62-050-30-A#
```

## 2-9 power

Clear power-over-ethernet configuration.

#### Syntax

**clear power** inline interfaces GigabitEthernet <port\_list> statistics

#### Parameter

|                          |                 |
|--------------------------|-----------------|
| <b>&lt;port_list&gt;</b> | Port List X-Y,Z |
|--------------------------|-----------------|

#### Example

```
C62-050-30-A# clear power inline interfaces GigabitEthernet 3-6 statistics
C62-050-30-A#
```

## 2-10 spanning-tree

**clear spanning-tree** statistics

#### Syntax

**clear spanning-tree** interfaces GigabitEthernet <port\_list> statistics

**clear spanning-tree** interfaces LAG <lag\_list> statistics

**Parameter**

|                        |                                         |                 |
|------------------------|-----------------------------------------|-----------------|
| <b>GigabitEthernet</b> | Gigabit ethernet interface to configure |                 |
|                        | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z |
| <b>LAG</b>             | IEEE 802.3 Link Aggregation interface   |                 |
|                        | <b>&lt;lag_list&gt;</b>                 | LAG List X-Y,Z  |

**Example**

```
C62-050-30-A# clear spanning-tree interfaces GigabitEthernet 1-3,6 statistics
C62-050-30-A# clear spanning-tree interfaces LAG 1-3,6 statistics
C62-050-30-A#
```

Manage the system clock.

### Syntax

**clock set** <HH:MM:SS> <month> <day> <year>

### Parameter

|            |                               |                                                                                                                                                                                                                                                |
|------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>set</b> | Manually set the system clock |                                                                                                                                                                                                                                                |
|            | <b>&lt; HH:MM:SS &gt;</b>     | Current time in hours (24 Hour format), minutes, and seconds.                                                                                                                                                                                  |
|            | <b>&lt;month&gt;</b>          | jan Month January<br>feb Month February<br>mar Month March<br>apr Month April<br>may Month May<br>jun Month June<br>jul Month July<br>aug Month August<br>sep Month September<br>oct Month October<br>nov Month November<br>dec Month December |
|            | <b>&lt;day&gt;</b>            | Current day in the month.Current year                                                                                                                                                                                                          |
|            | <b>&lt;year&gt;</b>           | <2000-2035>                                                                                                                                                                                                                                    |

### Example

```
C62-050-30-A# clock set 16:54:00 jan 7 2022
C62-050-30-A#
```

Table : CONFIGURE Commands

| Command         | Function                                      |
|-----------------|-----------------------------------------------|
| boot            | Booting Operations                            |
| ceiling         | LED and Power Configuration                   |
| clock           | Manage the system clock                       |
| custom          | Custom Module configuration                   |
| dido            | Digital I/O Configuration                     |
| dos             | DoS information                               |
| do              | To run exec commands in current mode          |
| end             | End current mode and change to enable mode    |
| errdisable      | Error Disable                                 |
| exit            | Exit current mode and down to previous mode   |
| hostname        | Set system's network name                     |
| interface       | Select an interface to configure              |
| ip              | IP information                                |
| ipv6            | IPv6 information                              |
| jumbo-frame     | Jumbo Frame configuration                     |
| lacp            | LACP Configuration                            |
| lag             | Link Aggregation Group Configuration          |
| line            | To identify a specific line for configuration |
| lldp            | Global LLDP configuration subcommands         |
| logging         | Log Configuration                             |
| loop-prevention | Loop-prevention configuration                 |
| mac             | MAC configuration                             |
| management-vlan | Management VLAN configuration                 |
| mirror          | Mirror configuration                          |
| no              | Negate command                                |
| ntp             | Network Time Protocol                         |
| port-security   | Port Security                                 |
| power           | Power-over-Ethernet Configuration             |
| qos             | QoS configuration                             |
| smtp            | SMTP Configuration                            |
| snmp            | SNMP information                              |

|               |                             |
|---------------|-----------------------------|
| spanning-tree | Spanning-tree configuration |
| system        | System information          |
| username      | Local User                  |
| vlan          | VLAN configuration          |

---

## 4-1 configure

Configure from the terminal.

### Syntax

**configure**

### Example

```
C62-050-30-A# configure
C62-050-30-A(config)#
```

## 4-1.1 boot

To select booting image.

### Syntax

**boot system** {<image0>|<image1>}

### Parameter

|               |                 |
|---------------|-----------------|
| <b>image0</b> | Runtime image 0 |
| <b>Image1</b> | Runtime image 1 |

### Example

```
C62-050-30-A(config)# boot system image0
C62-050-30-A(config)#
```

## 4-1.1 ceiling

LED Configuration

Power Configuration

### 4-1.1.1 LED configuration

To configure LED

## Syntax

```
ceiling led {<12v_enable>|<24v_enable>|<di_enable>|<do_enable>|<pwr_enable>|<sys_enable>|  
<lan1_enable>|<lan2_enable>|<lan3_enable>|<lan4_enable>|<lan5_enable>|<lan6_enable>|  
<poe1_enable>|<poe2_enable>|<poe3_enable>|<poe4_enable>|<poe5_enable>}
```

## Parameter

|                    |                  |
|--------------------|------------------|
| <b>12v_enable</b>  | Set 12V enable   |
| <b>24v_enable</b>  | Set 24V enable   |
| <b>di_enable</b>   | Set DI enable    |
| <b>do_enable</b>   | Set DO enable    |
| <b>pwr_enable</b>  | Set power enable |
| <b>sys_enable</b>  | Set SYS enable   |
| <b>lan1_enable</b> | Set LAN1 enable  |
| <b>lan2_enable</b> | Set LAN2 enable  |
| <b>lan3_enable</b> | Set LAN3 enable  |
| <b>lan4_enable</b> | Set LAN4 enable  |
| <b>lan5_enable</b> | Set LAN5 enable  |
| <b>lan6_enable</b> | Set LAN6 enable  |
| <b>poe1_enable</b> | Set POE1 enable  |
| <b>poe2_enable</b> | Set POE2 enable  |
| <b>poe3_enable</b> | Set POE3 enable  |
| <b>poe4_enable</b> | Set POE4 enable  |
| <b>poe5_enable</b> | Set POE5 enable  |

## Example

```
C62-050-30-A(config)# ceiling led 12v_enable  
C62-050-30-A(config)# no ceiling led 12v_enable
```

### 4-1.1.2 Power Configuration

To configuration DC Power.

## Syntax

```
ceiling power {<pwr_12v_enable>|<pwr_24v_enable>}
```

## Parameter

|                       |                      |
|-----------------------|----------------------|
| <b>pwr_12v_enable</b> | Set Power 12V enable |
| <b>pwr_24v_enable</b> | Set Power 24V enable |

### Example

```
C62-050-30-A(config-if)# ceiling power pwr_12v_enable
C62-050-30-A(config-if)# no ceiling power pwr_12v_enable
C62-050-30-A(config-if)#
```

## 4-1.2 clock

To manage the system clock.

### Syntax

```
clock {<source>|<summer-time>|<timezone>}
```

### Parameter

|                    |                                                                                    |
|--------------------|------------------------------------------------------------------------------------|
| <b>source</b>      | Configure an external time source for the system clock                             |
| <b>summer-time</b> | Configure the system to automatically switch to summer time (daylight saving time) |
| <b>timezone</b>    | Set the time zone for display purposes                                             |

### Example

```
C62-050-30-A(config)# clock source local
C62-050-30-A(config)# clock source ntp
C62-050-30-A(config)#
```

## 4-1.3 custom

To configure custom module.

### Syntax

```
custom enable
```

### Parameter

### Example

```
C62-050-30-A(config)# custom enable
C62-050-30-A(config)#
```

## 4-1.5 dos

To configure DoS.

### Syntax

```
dos {<daeqsa-deny>|<icmp-frag-pkts-deny>|<icmpv4-ping-max-check>|<icmpv6-ping-max-check>|
<ipv6-min-frag-size-check>|<land-deny>|<>nullscan-deny>|<pod-deny>|<smurf-deny>|
<syn-sport1024-deny>|<synfin-deny>|<synrst-deny>|<tcp-frag-off-min-check>|<tcpblat-deny>|
<tcphdr-min-check>|<udpblat-deny>|<udpblat-deny>}

dos icmp-ping-max-length <0-65535>
dos ipv6-min-frag-size-length <0-65535>
dos smurf-netmask <0-32>
dos tcphdr-min-length <0-31>
```

### Parameter

|                                  |                                        |
|----------------------------------|----------------------------------------|
| <b>daeqsa-deny</b>               | Destination MAC equals to source MAC   |
| <b>icmp-frag-pkts-deny</b>       | Fragmented ICMP packets                |
| <b>icmp-ping-max-length</b>      | DoS information                        |
| <b>icmpv4-ping-max-check</b>     | Check ICMPv4 ping maximum packets size |
| <b>icmpv6-ping-max-check</b>     | Check ICMPv6 ping maximum packets size |
| <b>ipv6-min-frag-size-check</b>  | Check minimum size of IPv6 fragments   |
| <b>ipv6-min-frag-size-length</b> | DoS information                        |
| <b>land-deny</b>                 | Source IP equals to destination IP     |
| <b>nullscan-deny</b>             | NULL Scan Attacks                      |
| <b>pod-deny</b>                  | Ping of Death Attacks                  |
| <b>smurf-deny</b>                | Smurf Attacks                          |
| <b>smurf-netmask</b>             | DoS information                        |
| <b>syn-sport1024-deny</b>        | SYN packets with sport less than 1024  |
| <b>synfin-deny</b>               | SYN and FIN bits set in the packet     |
| <b>synrst-deny</b>               | SYN and RST bits set in the packet     |

|                               |                                                                        |
|-------------------------------|------------------------------------------------------------------------|
| <b>tcp-frag-off-min-check</b> | TCP fragment packet with offset equals to one                          |
| <b>tcpblat-deny</b>           | Source TCP port equals to destination TCP port                         |
| <b>tcphdr-min-check</b>       | Check minimum TCP header                                               |
| <b>tcphdr-min-length</b>      | DoS information                                                        |
| <b>udpblat-deny</b>           | Source UDP port equals to destination UDP port                         |
| <b>xma-deny</b>               | Xmascan: sequence number is zero and the FIN, URG and PSH bits are set |

### Example

```
C62-050-30-A(config)# dos xma-deny
C62-050-30-A(config)#
```

## 4-1.6 do

To run exec commands in current mode.

### Syntax

**do** <command for exec mode>

### Parameter

### Example

```
C62-050-30-A(config)# do show users
  Username      Protocol      Location
  -----
  admin         console      0.0.0.0
C62-050-30-A(config)#
```

## 4-1.7 end

End current mode and change to enable mode.

### Syntax

**end**

### Example

```
C62-050-30-A(config)# end
C62-050-30-A#
```

## 4-1.8 errdisable

Error Disable.

### Syntax

```
errdisable recovery cause {<acl>|<all>|<arp-inspection>|<bpdu-guard>|<broadcast-flood>|
<dhcp-rate-limit>|<psecure-violation>|<selfloop>|
<unicast-flood>|<unknown-multicast-flood>}
errdisable recovery interval <interval_time>
```

### Parameter

|                 |                                |                                                      |
|-----------------|--------------------------------|------------------------------------------------------|
| <b>cause</b>    | Error Disabled caused reason   |                                                      |
|                 | <b>acl</b>                     | Enable timer to recover from acl causes              |
|                 | <b>all</b>                     | Enable timer to recover from all causes              |
|                 | <b>arp-inspection</b>          | Enable timer to recover from arp rate limit causes   |
|                 | <b>bpdu-guard</b>              | Enable timer to recover from bpdu guard causes       |
|                 | <b>broadcast-flood</b>         | Enable timer to recover from broadcast flood causes  |
|                 | <b>dhcp-rate-limit</b>         | Enable timer to recover from dhcp rate limit causes  |
|                 | <b>psecure-violation</b>       | Enable timer to recover from port security causes    |
|                 | <b>selfloop</b>                | Enable timer to recover from selfloop causes         |
|                 | <b>unicast-flood</b>           | Enable timer to recover from unicast flood causes    |
|                 | <b>unknown-multicast-flood</b> | Enable timer to recover from unknown multicast flood |
| <b>interval</b> | Recovery interval              |                                                      |
|                 | <b>&lt;interval_time&gt;</b>   | Interval with the number of seconds (30-86400)       |

### Example

```
C62-050-30-A(config)# errdisable recovery cause unknown-multicast-flood
C62-050-30-A(config)#
```

## 4-1.9 exit

Exit current mode and down to previous mode.

## Syntax

**exit**

## Example

```
C62-050-30-A(config)# exit
C62-050-30-A#
```

## 4-1.10 hostname

To set system's network name.

## Syntax

**hostname** <system\_network\_name>

## Parameter

|                            |                                  |
|----------------------------|----------------------------------|
| <b>system_network_name</b> | System network name (1-32 words) |
|----------------------------|----------------------------------|

## Example

```
C62-050-30-A(config)# hostname C62-050-30-A
C62-050-30-A(config)#
```

## 4-1.11 interface

Select an interface to configure.

## Syntax

**interface** GigabitEthernet <port\_number>

**interface** LAG <lag\_id>

**interface range** GigabitEthernet <port\_list>

**interface range** LAG <lag\_list>

## Parameter

|                        |                                         |                                                            |
|------------------------|-----------------------------------------|------------------------------------------------------------|
| <b>GigabitEthernet</b> | Gigabit ethernet interface to configure |                                                            |
|                        | <b>&lt;port_number&gt;</b>              | Port number                                                |
| <b>LAG</b>             | IEEE 802.3 Link Aggregation interface   |                                                            |
|                        | <b>&lt;lag_id&gt;</b>                   | LAG id                                                     |
| <b>range</b>           | Interface range command                 |                                                            |
|                        | <b>GigabitEthernet</b>                  | Gigabit ethernet interface to configure                    |
|                        | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z                                            |
|                        | <b>back-pressure</b>                    | Enable back-pressure                                       |
|                        | <b>custom</b>                           | Custom Module configuration                                |
|                        | <b>description</b>                      | Interface specific description                             |
|                        | <b>dos</b>                              | DoS information                                            |
|                        | <b>do</b>                               | To run exec commands in current mode                       |
|                        | <b>duplex</b>                           | Configure duplex operation                                 |
|                        | <b>eee</b>                              | EEE configuration                                          |
|                        | <b>end</b>                              | End current mode and change to enable mode                 |
|                        | <b>exit</b>                             | Exit from current mode                                     |
|                        | <b>flowcontrol</b>                      | Configure flow-control mode                                |
|                        | <b>ip</b>                               | IP information                                             |
|                        | <b>lACP</b>                             | LACP Configuration                                         |
|                        | <b>lag</b>                              | Link Aggregation Group Configuration                       |
|                        | <b>lldp</b>                             | LLDP interface subcommands                                 |
|                        | <b>mac</b>                              | MAC configuration                                          |
|                        | <b>no</b>                               | Negate command                                             |
|                        | <b>port-security</b>                    | Port Security                                              |
|                        | <b>power</b>                            | Power-over-Ethernet Configuration                          |
|                        | <b>protected</b>                        | Configure an interface to be a protected port              |
|                        | <b>qos</b>                              | QoS configuration                                          |
|                        | <b>rate-limit</b>                       | Rate limit configuration of the specified incoming traffic |
|                        | <b>shutdown</b>                         | Shutdown the selected interface                            |
|                        | <b>spanning-tree</b>                    | Spanning-tree configuration                                |
|                        | <b>speed</b>                            | Configure speed operation                                  |
|                        | <b>storm-control</b>                    | Storm control configuration                                |
|                        | <b>switchport</b>                       | Set switching mode characteristics                         |
|                        | <b>LAG</b>                              | IEEE 802.3 Link Aggregation interface                      |

|  |  |                         |                                               |
|--|--|-------------------------|-----------------------------------------------|
|  |  | <b>&lt;lag_list&gt;</b> | LAG List X-Y,Z                                |
|  |  | <b>back-pressure</b>    | Enable back-pressure                          |
|  |  | <b>custom</b>           | Custom Module configuration                   |
|  |  | <b>description</b>      | Interface specific description                |
|  |  | <b>dos</b>              | DoS information                               |
|  |  | <b>do</b>               | To run exec commands in current mode          |
|  |  | <b>duplex</b>           | Configure duplex operation                    |
|  |  | <b>end</b>              | End current mode and change to enable mode    |
|  |  | <b>exit</b>             | Exit from current mode                        |
|  |  | <b>flowcontrol</b>      | Configure flow-control mode                   |
|  |  | <b>ip</b>               | IP information                                |
|  |  | <b>mac</b>              | MAC configuration                             |
|  |  | <b>no</b>               | Negate command                                |
|  |  | <b>protected</b>        | Configure an interface to be a protected port |
|  |  | <b>qos</b>              | QoS configuration                             |
|  |  | <b>shutdown</b>         | Shutdown the selected interface               |
|  |  | <b>spanning-tree</b>    | Spanning-tree configuration                   |
|  |  | <b>speed</b>            | Configure speed operation                     |
|  |  | <b>switchport</b>       | Set switching mode characteristics            |

### Example

```
C62-050-30-A(config)# interface GigabitEthernet 1
C62-050-30-A(config-if)#
```

#### 4-1.11.1 back-pressure

Back-pressure configuration.

#### Syntax

**back-pressure**

**no back-pressure**

### Example

```
C62-050-30-A(config-if) # back-pressure
C62-050-30-A(config-if) # no back-pressure
C62-050-30-A(config-if) #
```

### 4-1.11.2 custom

Per port custom module configuration

#### Syntax

**custom enable**

**no custom enable**

#### Parameter

|                         |                                  |
|-------------------------|----------------------------------|
| <b>custom enable</b>    | Enable per port custom function  |
| <b>no custom enable</b> | Disable per port custom function |

### Example

```
C62-050-30-A(config-if) # custom enable
C62-050-30-A(config-if) # no custom enable
C62-050-30-A(config-if) #
```

### 4-1.11.3 description

Interface specific description

#### Syntax

**description <WORD>**

**no description**

#### Parameter

|             |                                 |
|-------------|---------------------------------|
| <b>WORD</b> | Description string (1-63 words) |
|-------------|---------------------------------|

### Example

```
C62-050-30-A(config-if)# description desc_word
C62-050-30-A(config-if)# no description
C62-050-30-A(config-if)#
```

### 4-1.11.4 dos

Per port DoS-related function configuration

#### Syntax

**dos**

**no dos**

#### Parameter

|               |                               |
|---------------|-------------------------------|
| <b>dos</b>    | Enable per port DoS function  |
| <b>no dos</b> | Disable per port DoS function |

### Example

```
C62-050-30-A(config-if)# dos
C62-050-30-A(config-if)# no dos
C62-050-30-A(config-if)#
```

### 4-1.11.5 do

To run exec commands in current mode

#### Syntax

**do** <sequence>

#### Parameter

|                 |              |
|-----------------|--------------|
| <b>sequence</b> | Exec Command |
|-----------------|--------------|

## Example

```
C62-050-30-A(config-if)# do show info
System Name      : C62-050-30-A
System Location  :
System Contact   :
MAC Address      : 68:8D:B6:00:00:00
IP Address       : 192.168.11.199
Subnet Mask      : 255.255.255.0
Loader Version   : 2.0.0.1
Loader Date      : Jan 11 2022 - 13:46:46
Firmware Version : 2.0.1.3_vk
Firmware Date    : Jan 11 2022 - 13:52:13
System Object ID : 1.3.6.1.4.1.27282.3.2.10
System Up Time   : 0 days, 0 hours, 40 mins, 3 secs
C62-050-30-A(config-if)#
```

## 4-1.11.6 duplex

Per Port duplex configuration

### Syntax

**Duplex** {<auto>|<full>|<half>}

### Parameter

|             |                                  |
|-------------|----------------------------------|
| <b>auto</b> | Enable auto duplex configuration |
| <b>full</b> | Force full duplex operation      |
| <b>half</b> | Force half duplex operation      |

## Example

```
C62-050-30-A(config-if)# duplex auto
C62-050-30-A(config-if)#
```

#### 4-1.11.7 eee

Per port EEE configuration

##### Syntax

**eee**

**no eee**

##### Parameter

|               |                               |
|---------------|-------------------------------|
| <b>eee</b>    | Enable per port EEE function  |
| <b>no eee</b> | Disable per port EEE function |

##### Example

```
C62-050-30-A(config-if)# eee
C62-050-30-A(config-if)# no eee
C62-050-30-A(config-if)#
```

#### 4-1.11.8 end

End current mode and change to enable mode

##### Syntax

**end**

##### Example

```
C62-050-30-A(config-if)# end
C62-050-30-A#
```

#### 4-1.11.9 exit

Exit from current mode

##### Syntax

**exit**

### Example

```
C62-050-30-A(config-if)# exit
C62-050-30-A(config)#
```

## 4-1.11.10 flowcontrol

Per port flow control configuration

### Syntax

**flowcontrol** {<auto>|<off>|<on>}

### Parameter

|             |                                         |
|-------------|-----------------------------------------|
| <b>auto</b> | Enable per port auto mode flow control  |
| <b>off</b>  | Disable per port flow control function  |
| <b>on</b>   | Force on per port flow control function |

### Example

```
C62-050-30-A(config-if)# flowcontrol auto
C62-050-30-A(config-if)#
```

## 4-1.11.11 ip

Per port IP information.

### Syntax

**ip igmp** filter <1-128>

**ip igmp** max-groups <0-256>

**ip igmp** max-groups action {<deny>|<replace>}

### Parameter

|                   |                                      |                               |
|-------------------|--------------------------------------|-------------------------------|
| <b>filter</b>     | IPv4 filter                          |                               |
|                   | <1-128>                              | IPv4 filter profile index     |
| <b>max-groups</b> | IGMP snooping max group number 0~256 |                               |
|                   | deny                                 | IGMP max-group action deny    |
|                   | replace                              | IGMP max-group action replace |

### Example

```
C62-050-30-A(config-if)# ip igmp filter 1
C62-050-30-A(config-if)#
```

### 4-1.11.12 lacp

Per port LACP-related function configuration

### Syntax

**lacp priority** <1-65535>

**lacp timeout** {<fast>|<slow>}

**no lacp priority**

**no lacp timeout**

### Parameter

|                 |                                           |                     |
|-----------------|-------------------------------------------|---------------------|
| <b>priority</b> | IEEE 802.3 link aggregation port priority |                     |
|                 | <1-65535>                                 | Port-priority value |
| <b>timeout</b>  | IEEE 802.3 link aggregation port timeout  |                     |
|                 | fast                                      | Long timeout value  |
|                 | slow                                      | Short timeout value |

### Example

```
C62-050-30-A(config-if)# lacp timeout slow
C62-050-30-A(config-if)#
```

#### 4-1.11.13 lag

Per port link aggregation group configuration.

##### Syntax

**lag <lag-id> lacp {<active>|<passive>}**

**lag <lag-id> mode static**

**no lag**

##### Parameter

|                       |                                            |                    |                    |
|-----------------------|--------------------------------------------|--------------------|--------------------|
| <b>&lt;lag-id&gt;</b> | configure port as LAG <lag-id> member port |                    |                    |
|                       | <b>mode</b>                                | Set LAG mode       |                    |
|                       |                                            | static             | Enable Static Only |
|                       | <b>lacp</b>                                | LACP Configuration |                    |
|                       |                                            | active             | active mode        |
|                       |                                            | passive            | passive mode       |

##### Example

```
C62-050-30-A(config-if)# lag 1 lacp active
C62-050-30-A(config-if)#
```

#### 4-1.11.14 lldp

Per port LLDP function configuration

##### Syntax

**lldp rx**

**lldp tlv-select {<TLV>|pvid {<enable>|<disable>}}vlan-name {add <VLAN-LIST>|remove <VLAN-LIST>}}**

**lldp tx**

**no lldp rx**

**no tlv-select**

**no tlv-select pvid**

no lldp tx

#### Parameter

|                   |                                       |                                                                                                                     |                                                           |  |
|-------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--|
| <b>rx</b>         | Enable LLDP reception on interface    |                                                                                                                     |                                                           |  |
| <b>tlv-select</b> | Selection of LLDP TLVs to send        |                                                                                                                     |                                                           |  |
|                   | <b>TLV</b>                            | LLDP optional TLV, pick from: port-desc, sys-name, sys-desc, sys-cap, mac-phy, lag, max-frame-size, management-addr |                                                           |  |
|                   | <b>pvid</b>                           | disable                                                                                                             | Disable Tx optional-TLV 802.1 PVID                        |  |
|                   |                                       | enable                                                                                                              | Enable Tx optional-TLV 802.1 PVID                         |  |
|                   | <b>vlan-name</b>                      | Add/remove VLAN for advertise                                                                                       |                                                           |  |
| <b>add</b>        |                                       | <VLAN_LIST>                                                                                                         | VLAN List (e.g. 3,6-8): The range of VLAN ID is 0 to 4095 |  |
| <b>remove</b>     |                                       | <VLAN_LIST>                                                                                                         | VLAN List (e.g. 3,6-8): The range of VLAN ID is 0 to 4095 |  |
| <b>tx</b>         | Enable LLDP transmission on interface |                                                                                                                     |                                                           |  |

#### Example

```
C62-050-30-A(config-if)# lldp tx
C62-050-30-A(config-if)#
```

#### 4-1.11.15 mac

Per port mac address table configuration

#### Syntax

**mac address-table learn** {<auto>|<disable>|<secure>}

#### Parameter

|                |                                                                    |
|----------------|--------------------------------------------------------------------|
| <b>auto</b>    | Learning is done automatically                                     |
| <b>disable</b> | No learning                                                        |
| <b>secure</b>  | Only static MAC entries are learned, all other frames are dropped. |

#### Example

```
C62-050-30-A(config-if)# mac address-table learn secure
C62-050-30-A(config-if)#
```

#### 4-1.11.16 no

Negate command

**Table : configure – no Commands**

| <b>Command</b> | <b>Function</b>                                            |
|----------------|------------------------------------------------------------|
| back-pressure  | Enable back-pressure                                       |
| custom         | Custom Module configuration                                |
| description    | Interface specific description                             |
| dos            | DoS information                                            |
| eee            | EEE configuration                                          |
| flowcontrol    | Configure flow-control mode                                |
| ip             | IP information                                             |
| lacp           | LACP Configuration                                         |
| Lag            | Link Aggregation Group Configuration                       |
| lldp           | Lldp configuration                                         |
| port-security  | Port Security                                              |
| power          | Power-over-Ethernet Configuration                          |
| protected      | Configure an interface to be a protected port              |
| qos            | QoS configuration                                          |
| rate-limit     | Rate limit configuration of the specified incoming traffic |
| shutdown       | Shutdown the selected interface                            |
| spanning-tree  | Spanning-tree configuration                                |
| storm-control  | Storm control configuration                                |
| switchport     | Set switching mode characteristics                         |

#### 4-1.11.17 port-security

Per port port-security function configuration.

##### Syntax

**port-security** {<cr>|<address-limit>|<mac-address>|<violation>}

**no port-security** {<cr>|<address-limit>|<mac-address>|<violation>}

##### Parameter

|                      |                                               |
|----------------------|-----------------------------------------------|
| <b>address-limit</b> | MAC address limitation                        |
| <b>mac_address</b>   | Sticky MAC address                            |
| <b>violation</b>     | Action to be taken when limitation is reached |

##### Example

```
C62-050-30-A(config-if) # port-security
C62-050-30-A(config-if) #
```

#### 4-1.11.18 power

Per port power over ethernet (PoE) configuration.

##### Syntax

**power inline auto**

**power inline auto-check** {<action>|<interval>|<ip>|<reboot-max>|<reboot-time>|<retry>|<start-time>}

**power inline delay initial** {<cr>|<0-300>}

**power inline bt**

**power inline poh**

**power inline force**

**power inline limit** <0-30000>

**power inline never**

**power inline priority** {<critical>|<high>|<low>}

**power inline** schedule <schedule\_profile\_number>

**no power inline** {<delay>|<limit>|<schedule>}

### Parameter

|                   |                                                                                    |                                                             |
|-------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------|
| <b>auto</b>       | Turns on the device discovery protocol and applies power to the device.            |                                                             |
| <b>auto_check</b> | Auto check funtion                                                                 |                                                             |
|                   | <b>action</b>                                                                      | ilpower port auto check action                              |
|                   | <b>interval</b>                                                                    | ilpower port auto check interval                            |
|                   | <b>ip</b>                                                                          | ilpower port auto check ip                                  |
|                   | <b>reboot-max</b>                                                                  | ilpower port auto check maximum reboot times                |
|                   | <b>reboot-time</b>                                                                 | ilpower port auto check reboot time                         |
|                   | <b>retry</b>                                                                       | ilpower port auto check retry times                         |
|                   | <b>start-time</b>                                                                  | ilpower port auto check start time                          |
| <b>delay</b>      | <b>initial</b>                                                                     | Initial power enable                                        |
|                   |                                                                                    | <0-300>      Specifies the port power delay time in seconds |
| <b>force</b>      | The switch port will power up the linked PD without any detect/negotiate mechanism |                                                             |
| <b>bt</b>         | BT Mode                                                                            |                                                             |
| <b>poh</b>        | POH Mode                                                                           |                                                             |
| <b>limit</b>      | The port limit of the interface from the point of view of inline power management  |                                                             |
|                   | <0-30000>                                                                          | Specify the port limit in milliwatt                         |
| <b>never</b>      | Turns off the device discovery protocol and stops supplying power to the device    |                                                             |
| <b>priority</b>   | ilpower port priority                                                              |                                                             |
|                   | critical                                                                           | Specifies that the powered device operation is critical     |
|                   | high                                                                               | Specifies that the powered device operation is high         |
|                   | low                                                                                | Specifies that the powered device operation is low          |
| <b>schedule</b>   | Schedule Profile Configuration                                                     |                                                             |
|                   | <1-10>                                                                             | Schedule Profile number                                     |

### Example

```
C62-050-30-A(config-if)# power inline schedule 1
C62-050-30-A(config-if)#
```

#### 4-1.11.19 protected

Per port protected function configuration.

##### Syntax

**protected**

**no protected**

##### Example

```
C62-050-30-A(config-if)# protected
C62-050-30-A(config-if)#
```

#### 4-1.11.20 qos

Per port QoS-related configuration

##### Syntax

**qos** {<cos>|<queue>|<remark>|<schedule>|<trust>}

##### Parameter

|                 |                                                                                                                                          |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>cos</b>      | Configure the default CoS value for a port. Use the no form of the command to return to the default setting.                             |
| <b>queue</b>    | Queue configuration                                                                                                                      |
| <b>remark</b>   | Configure remarking state of each port                                                                                                   |
| <b>schedule</b> | QoS scheduling algorithm                                                                                                                 |
| <b>trust</b>    | Configure each port to trust state while the system is in basic mode. Use the no form of the command to disable trust state on each port |

##### Example

```
C62-050-30-A(config-if)# qos schedule wfq
C62-050-30-A(config-if)#
```

#### 4-1.11.21 rate-limit

Per port rate limit configuration

##### Syntax

**rate-limit egress** <16-1000000>

**rate-limit egress queue** <queue\_id> <16-1000000>

**rate-limit ingress** <16-1000000>

**no rate-limit egress queue** <queue\_id>

**no rate-limit ingress**

##### Parameter

|                |                                                            |                                                            |          |
|----------------|------------------------------------------------------------|------------------------------------------------------------|----------|
| <b>egress</b>  | Rate limit args egress configuration                       |                                                            |          |
|                | <16-1000000>                                               | The average traffic rate in Kbps, must be a multiple of 16 |          |
|                | <b>queue</b>                                               | queue configuration                                        |          |
|                |                                                            | <queue_id>                                                 | queue id |
| <16-1000000>   | The average traffic rate in Kbps, must be a multiple of 16 |                                                            |          |
| <b>ingress</b> | Rate limit args ingress configuration                      |                                                            |          |
|                | <16-1000000>                                               | The average traffic rate in Kbps, must be a multiple of 16 |          |

##### Example

```
C62-050-30-A(config-if)# rate-limit ingress 16000
C62-050-30-A(config-if)#
```

#### 4-1.11.22 shutdown

Shutdown the selected interface

##### Syntax

**shutdown**

**no shutdown**

## Parameter

|                    |                        |
|--------------------|------------------------|
| <b>shutdown</b>    | shutdown the interface |
| <b>no shutdown</b> | turn on the interface  |

## Example

```
C62-050-30-A(config-if) # shutdown
C62-050-30-A(config-if) #
```

### 4-1.11.23 spanning-tree

Per port spanning tree configuration

## Syntax

**spanning-tree**

**spanning-tree bpd-filter**

**spanning-tree bpd-guard**

**spanning-tree cost** <0-200000000>

**spanning-tree edge**

**spanning-tree link-type** {<point-to-point>|<shared>}

**spanning-tree mcheck**

**spanning-tree mst** <0-15> **cost** <0-200000000>

**spanning-tree mst** <0-15> **port-priority** <0-240>

**spanning-tree port-priority** <0-240>

## Parameter

|                   |                                               |                                            |
|-------------------|-----------------------------------------------|--------------------------------------------|
| <b>bpd-filter</b> | Sets the BPDU-Filter for specified port       |                                            |
| <b>bpd-guard</b>  | Sets the BPDU-Guard for specified port        |                                            |
| <b>cost</b>       | Change an interface's spanning tree path cost |                                            |
|                   | <0-200000000>                                 | The value of external path cost (0 = Auto) |
| <b>edge</b>       | Sets the edge-port for specified port         |                                            |

|                      |                                                    |                                          |                                                    |  |
|----------------------|----------------------------------------------------|------------------------------------------|----------------------------------------------------|--|
| <b>link-type</b>     | Specify a link type for spanning tree protocol use |                                          |                                                    |  |
|                      | <point-to-point>                                   | Consider the interface as point-to-point |                                                    |  |
|                      | <shared>                                           | Consider the interface as shared         |                                                    |  |
| <b>mcheck</b>        | Set the mcheck for specified port to migrate       |                                          |                                                    |  |
| <b>mst</b>           | Sets spanning-tree parameters of instance          |                                          |                                                    |  |
|                      | <0-15>                                             | Instance ID (0~15)                       |                                                    |  |
|                      |                                                    | cost                                     | Sets the internal path cost for specified instance |  |
|                      |                                                    | <0-200000000>                            | The value of internal path cost (0 = Auto)         |  |
|                      | port-priority                                      | Sets the priority for specified instance |                                                    |  |
| <0-240>              |                                                    | Priority (0~240)                         |                                                    |  |
| <b>port-priority</b> | Sets the priority for specified instance           |                                          |                                                    |  |
|                      | <0-240>                                            | Priority (0~240)                         |                                                    |  |

### Example

```
C62-050-30-A(config-if)# spanning-tree link-type point-to-point
C62-050-30-A(config-if)#
```

### 4-1.11.24 speed

Per port speed configuration

#### Syntax

```
speed {10|100|1000|auto}
```

#### Parameter

#### Example

```
C62-050-30-A(config-if)# speed 1000
C62-050-30-A(config-if)#
```

### 4-1.11.25 storm-control

Per port storm-control configuration

## Syntax

**storm-control** {<cr>|<action>|<broadcast>|<unknown-multicast>|<unknown-unicast>}

**no storm-control** {<cr>|<action>|<broadcast>|<unknown-multicast>|<unknown-unicast>}

## Parameter

|                          |                                             |
|--------------------------|---------------------------------------------|
| <b>action</b>            | Storm control action after exceed threshold |
| <b>broadcast</b>         | Broadcast storm control                     |
| <b>unknown-multicast</b> | Unknown-multicast storm control             |
| <b>unknown-unicast</b>   | Unknown-unicast storm control               |

## Example

```
C62-050-30-A(config-if)# storm-control  
C62-050-30-A(config-if)#
```

### 4-1.11.26 switchport

Set per port switching mode characteristics.

## Syntax

**switchport** {<access>|<default-vlan>|<forbidden>|<hybrid>|<mode>|<trunk>}

**no switchport** {<access>|<default-vlan>|<forbidden>|<hybrid>|<mode>|<trunk>}

## Parameter

|                     |                                     |
|---------------------|-------------------------------------|
| <b>access</b>       | Vlan aware port                     |
| <b>default-vlan</b> | Default VLAN                        |
| <b>forbidden</b>    | Forbidden VLAN                      |
| <b>hybrid</b>       | Configure switchport in hybrid mode |
| <b>mode</b>         | VLAN mode                           |
| <b>trunk</b>        | Vlan aware port                     |

## Example

```
C62-050-30-A(config-if)# switchport mode access
C62-050-30-A(config-if)#
```

## 4-1.12 ip

Internet Protocol.

### Syntax

**ip** address <ipv4\_addr> {<cr>|mask <ipv4\_mask>}

**ip** default-gateway <ipv4\_addr>

**ip** dhcp

**ip** dhcp server

**ip** dhcp server dhcp-range <pool\_start\_ipv4\_addr> <pool\_end\_ipv4\_addr>

**ip** dhcp server lease-time <0-864000000>

**ip** dns <ipv4\_addr>

**ip** http

**ip** http port <1-65535>

**ip** http session-timeout <0-65535>

**ip** https

**ip** https port <1-65535>

**ip** https session-timeout <0-65535>

**ip** igmp profile <1-128>

**ip** igmp snooping {<cr>|<forward-method>|<report-suppression>|<unknown-multicast>|<version>|<vlan>}

### Parameter

|                |              |                                                        |         |
|----------------|--------------|--------------------------------------------------------|---------|
| <b>address</b> | IPv4 Address |                                                        |         |
|                | A.B.C.D      | IP Address format is A.B.C.D where (A/B/C/D = 0 ~ 255) |         |
|                |              | <b>mask</b>                                            | A.B.C.D |

|                        |                                   |                                                        |                               |                                               |                  |
|------------------------|-----------------------------------|--------------------------------------------------------|-------------------------------|-----------------------------------------------|------------------|
| <b>default-gateway</b> | Set default gateway IP address    |                                                        |                               |                                               |                  |
|                        | A.B.C.D                           | Default gateway IP address                             |                               |                                               |                  |
| <b>dhcp</b>            | DHCP configuration                |                                                        |                               |                                               |                  |
|                        | <b>server</b>                     | dhcp server configuration                              |                               |                                               |                  |
|                        |                                   | <b>dhcp-range</b>                                      | IPv4 range                    |                                               |                  |
|                        |                                   |                                                        | A.B.C.D                       | IPv4 start address                            | A.B.C.D          |
|                        |                                   | <b>lease-time</b>                                      | lease time                    |                                               |                  |
| <0-864000000>          | 0-864000000 seconds (0: infinite) |                                                        |                               |                                               |                  |
| <b>dns</b>             | DNS                               |                                                        |                               |                                               |                  |
|                        | A.B.C.D                           | IP Address format is A.B.C.D where (A/B/C/D = 0 ~ 255) |                               |                                               |                  |
| <b>http</b>            | HTTP server configuration         |                                                        |                               |                                               |                  |
|                        | <b>port</b>                       | Configure port                                         |                               |                                               |                  |
|                        |                                   | <1-65535>                                              | port number                   |                                               |                  |
|                        | <b>session-timeout</b>            | Session timeout configuration                          |                               |                                               |                  |
| <0-65535>              |                                   | Timeout after specified minutes (0 means no timeout)   |                               |                                               |                  |
| <b>https</b>           | HTTPS server configuration        |                                                        |                               |                                               |                  |
|                        | <b>port</b>                       | Configure port                                         |                               |                                               |                  |
|                        |                                   | <1-65535>                                              | port number                   |                                               |                  |
|                        | <b>session-timeout</b>            | Session timeout configuration                          |                               |                                               |                  |
| <0-65535>              |                                   | Timeout after specified minutes (0 means no timeout)   |                               |                                               |                  |
| <b>igmp</b>            | IGMP Configuration                |                                                        |                               |                                               |                  |
|                        | <b>profile</b>                    | IGMP profile                                           |                               |                                               |                  |
|                        |                                   | <1-128>                                                | Profile index                 |                                               |                  |
|                        | <b>snooping</b>                   | IGMP Snooping Configuration                            |                               |                                               |                  |
|                        |                                   | forward-method                                         | Forward method                |                                               |                  |
|                        |                                   |                                                        | dip                           | DIP method                                    |                  |
|                        |                                   |                                                        | mac                           | MAC method                                    |                  |
|                        |                                   | report-suppression                                     | IGMP v1/v2 report suppression |                                               |                  |
|                        |                                   | unknown-multicast                                      | Unknown multicast             |                                               |                  |
|                        |                                   |                                                        | action                        | Action on receiving unknown multicast packets |                  |
|                        |                                   |                                                        |                               | drop                                          | Drop the packets |
|                        | flood                             |                                                        |                               | Flood the packets                             |                  |
|                        | router-port                       | Forward to router ports                                |                               |                                               |                  |
| <b>version</b>         | IGMP Snooping Operation Version   |                                                        |                               |                                               |                  |
|                        | 2                                 | IGMP Operation Version is v2                           |                               |                                               |                  |
|                        | 3                                 | IGMP Operation Version is v3                           |                               |                                               |                  |
| <b>vlan</b>            | VLAN configuration                |                                                        |                               |                                               |                  |

|               |                             |                |                                                           |                                        |
|---------------|-----------------------------|----------------|-----------------------------------------------------------|----------------------------------------|
|               |                             | VLAN-LIST      | VLAN List (e.g. 3,6-8): The range of VLAN ID is 1 to 4094 |                                        |
|               |                             |                | forbidden-port                                            | IPv4 forbidden port configuration      |
|               |                             |                | forbidden-router-port                                     | Forbidden mrouter port configuration   |
|               |                             |                | immediate-leave                                           | IGMP snooping immediate-leave function |
|               |                             |                | last-member-query-count                                   | Last Member Query Count                |
|               |                             |                | last-member-query-interval                                | Last Member Query Interval             |
|               |                             |                | querier                                                   | IGMP snooping querier function         |
|               |                             |                | query-interval                                            | Query Interval                         |
|               |                             |                | response-time                                             | Response Time                          |
|               |                             |                | robustness-variable                                       | Robustness Variable                    |
|               |                             |                | router                                                    | IGMP snooping router                   |
|               |                             |                | static-group                                              | Static group configuration             |
|               |                             |                | static-port                                               | IPv4 static port configuration         |
|               |                             |                | static-router-port                                        | Static mrouter port configuration      |
| <b>ssh</b>    | SSH daemon configuration    |                |                                                           |                                        |
|               | <b>port</b>                 | Configure port |                                                           |                                        |
|               |                             | <1-65535>      | port number                                               |                                        |
| <b>telnet</b> | Telnet daemon configuration |                |                                                           |                                        |
|               | <b>port</b>                 | Configure port |                                                           |                                        |
|               |                             | <1-65535>      | port number                                               |                                        |

### Example

```

C62-050-30-A(config)# ip address 192.168.11.1
C62-050-30-A(config)# ip dhcp server dhcp-range 192.168.11.100 192.168.11.200
C62-050-30-A(config)# ip dhcp server
C62-050-30-A(config)# ip dns_address 8.8.8.8
C62-050-30-A(config)#

```

## 4-1.13 ipv6

IPv6 configuration commands.

### Syntax

#### Ipv6

**ipv6** address <ipv6\_address> prefix <0-128>

**ipv6** default-gateway <ipv6\_address>

**ipv6** dhcp

#### Parameter

|                        |                                |               |               |              |
|------------------------|--------------------------------|---------------|---------------|--------------|
| <b>address</b>         | Set IPv6 address and prefix    |               |               |              |
|                        | <ipv6_addr>                    | <b>prefix</b> | prefix length |              |
|                        |                                |               | <0-128>       | length value |
| <b>autoconfig</b>      | Enable Ipv6 auto-configuration |               |               |              |
| <b>default-gateway</b> | Set IPv6 gateway               |               |               |              |
|                        | <ipv6_addr>                    | IPv6 gateway  |               |              |
| <b>dhcp</b>            | Set IPv6 DHCP Client           |               |               |              |

#### Example

```
C62-050-30-A(config)# ipv6 address FC00:: prefix 8
C62-050-30-A(config)#
```

### 4-1.14 jumbo-frame

Jumbo frame configuration.

#### Syntax

**jumbo-frame** {<cr>|<1518-10000>}

#### Example

```
C62-050-30-A(config)# jumbo-frame
C62-050-30-A(config)#
```

### 4-1.15 lacp

Lacp system configuration.

### Syntax

**lacp** sys-priority <1-65535>

### Parameter

|                     |                              |                |
|---------------------|------------------------------|----------------|
| <b>sys-priority</b> | LACP priority for the system |                |
|                     | <1-65535>                    | Priority value |

### Example

```
C62-050-30-A(config)# lacp sys-priority 1
C62-050-30-A(config)#
```

## 4-1.16 lag

Link aggregation group configuration.

### Syntax

**lacp** load-balance {<src-dst-mac>|<src-dst-mac-ip>}

### Parameter

|                     |                                              |                                                                             |
|---------------------|----------------------------------------------|-----------------------------------------------------------------------------|
| <b>load-balance</b> | Configure load balancing policy of the trunk |                                                                             |
|                     | src-dst-mac                                  | LAG load balancing is based on source and destination MAC address           |
|                     | src-dst-mac-ip                               | LAG load balancing is based on source and destination of MAC and IP address |

### Example

```
C62-050-30-A(config)# lag load-balance src-dst-mac
C62-050-30-A(config)#
```

## 4-1.17 line

To identify a specific line for configuration.

### Syntax

**line** {<console>|<ssh>|<telnet>}

### Parameter

|         |                                                          |
|---------|----------------------------------------------------------|
| console | Console terminal line                                    |
| ssh     | Virtual terminal for secured remote console access (SSH) |
| telnet  | Virtual terminal for remote console access (Telnet)      |

### Example

```
C62-050-30-A(config)# line console
C62-050-30-A(config)#
```

## 4-1.18 lldp

LLDP configuration.

### Syntax

**lldp** holdtime-multiplier <2-10>

**lldp** lldpdu {<filtering>|<bridging>|<flooding>}

**lldp** reinit-delay <1-10>

**lldp** tx-delay <1-8192>

**lldp** tx-interval <5-32767>

### Parameter

|                            |                                                                                      |                                                                     |
|----------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>holdtime-multiplier</b> | Configuration of multiplier used for calculating the LLDP discovery packet hold time |                                                                     |
|                            | <2-10>                                                                               | Multiplier used for calculating the LLDP discovery packet hold time |

|                     |                                                          |                                                    |
|---------------------|----------------------------------------------------------|----------------------------------------------------|
| <b>lldpdu</b>       | Configure the action on LLDPDU upon disabled LLDP        |                                                    |
|                     | bridging                                                 | Bridging LLDP PDU to VLAN member ports             |
|                     | filtering                                                | Drop LLDP PDU                                      |
|                     | flooding                                                 | Flooding LLDP PDU to all ports (VLAN unaware)      |
| <b>reinit-delay</b> | Delay (in sec) for LLDP initialization on any interface  |                                                    |
|                     | <1-10>                                                   | Specify the delay (in secs) for LLDP to initialize |
| <b>tx-delay</b>     | Delay between successive LLDP frame transmission         |                                                    |
|                     | <1-8192>                                                 | LLDP Tx-delay time in seconds                      |
| <b>tx-interval</b>  | Specify the rate at which LLDP packets are sent (in sec) |                                                    |
|                     | <5-32768>                                                | Rate at which LLDP packets are sent (in sec)       |

### Example

```
C62-050-30-A(config)# lldp holdtime-multiplier 5
C62-050-30-A(config)# lldp tx-delay 1
C62-050-30-A(config)# lldp tx-interval 5
C62-050-30-A(config)#
```

## 4-1.19 logging

Log Configuration.

### Syntax

**logging** {<cr>|<buffered>|<console>|<file>} severity <0-7>

**logging** host

**logging** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>} facility <local0-local7>

**logging** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>} port <1-65535>

**logging** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>} port <1-65535> facility <local0-local7>

**logging** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>} port <1-65535> severity <0-7>

**logging** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>} port <1-65535> severity <0-7> facility <local0-local7>

**logging** class (auth-failed|cold-start|di|do|linkUpDown|poe-Fail|poe-OnOff|warm-start)

## Parameter

|                              |                                                   |                                                       |                                                |  |
|------------------------------|---------------------------------------------------|-------------------------------------------------------|------------------------------------------------|--|
| buffered / console /<br>file | Buffered logging / Console logging / File logging |                                                       |                                                |  |
|                              | severity                                          | Specify logging level                                 |                                                |  |
|                              |                                                   | <0-7>                                                 | Minimum severity <0-7> (EMEGR-DEBUG)           |  |
| host                         | Remote syslog host                                |                                                       |                                                |  |
|                              | <ipv4_addr> /<br>Hostname /<br><ipv6_addr>        | Valid IP v4 Address / Host name / Valid IP v6 Address |                                                |  |
|                              |                                                   | facility                                              | Specify facility parameter for syslog messages |  |
|                              |                                                   | port                                                  | Remote server port, default 514                |  |
|                              |                                                   | severity                                              | Specify logging level                          |  |
| class                        | Logging event class setting                       |                                                       |                                                |  |
|                              | auth-failed                                       | Set logging authentication failure event              |                                                |  |
|                              | cold-start                                        | Set logging bootstrap cold start-up event             |                                                |  |
|                              | di                                                | Set logging DI event                                  |                                                |  |
|                              | do                                                | Set logging DO event                                  |                                                |  |
|                              | linkUpDown                                        | Set logging link up and down event                    |                                                |  |
|                              | poe-Fail                                          | Set logging PoE failure event                         |                                                |  |
|                              | poe-OnOff                                         | Set logging PoE on/off event                          |                                                |  |
|                              | warm-start                                        | Set logging bootstrap warm start-up event             |                                                |  |

## Example

```
C62-050-30-A(config)# logging host 10.10.10.1 facility local7
C62-050-30-A(config)# logging console severity 5
C62-050-30-A(config)#
```

## 4-1.20 loop-prevention

Loop prevention configuration.

### Syntax

**loop-prevention**

### Example

```
C62-050-30-A(config)# loop-prevention
C62-050-30-A(config)#
```

## 4-1.21 mac

MAC address table configuration.

### Syntax

**mac** address-table {<aging>|<aging-time>|<static>}

### Parameter

|            |                                 |                                                                                      |
|------------|---------------------------------|--------------------------------------------------------------------------------------|
| aging      | aging state                     |                                                                                      |
| aging-time | aging time of the address table |                                                                                      |
|            | <10-630>                        | Aging-time range in seconds indicating how long an entry remain in mac address table |
| static     | Static MAC address              |                                                                                      |

### Example

```
C62-050-30-A(config)# mac address-table aging
C62-050-30-A(config)#
```

## 4-1.22 management vlan

Management VLAN configuration.

### Syntax

**management-vlan** vlan <1-4094>

### Parameter

|          |         |
|----------|---------|
| <1-4094> | VLAN ID |
|----------|---------|

### Example

```
C62-050-30-A(config)# management-vlan vlan 1
C62-050-30-A(config)#
```

## 4-1.23 mirror

Mirror configuration.

### Syntax

**mirror** session <1-4> source interface GigabitEthernet <port\_id> {<both>|<tx>|<rx>}

**mirror** session <1-4> source interface LAG <lag\_id> {<both>|<tx>|<rx>}

**mirror** session <1-4> destination interface GigabitEthernet <port\_id> {<cr>|<allow-ingress>}

### Parameter

|         |                              |                                    |  |
|---------|------------------------------|------------------------------------|--|
| session | Mirror Session configuration |                                    |  |
|         | <1-4>                        | Session ID (e.g. 1-4) configuraton |  |
|         | destination                  | Mirror destination configuration   |  |
|         | source                       | Mirror Source configuration        |  |

### Example

```
C62-050-30-A(config)# mirror session 1 destination interface GigabitEthernet 1
allow-ingress
C62-050-30-A(config)#
```

## 4-1.24 no

Negate command

**Table : configure – no Commands**

| <b>Command</b>  | <b>Function</b>                       |
|-----------------|---------------------------------------|
| clock           | Manage the system clock               |
| custom          | Custom Module configuration           |
| dos             | DoS information                       |
| errdisable      | Error Disable                         |
| ip              | IP information                        |
| ipv6            | IPv6 information                      |
| jumbo-frame     | Jumbo Frame configuration             |
| lacp            | LACP Configuration                    |
| lag             | Link Aggregation Group Configuration  |
| lldp            | Global LLDP configuration subcommands |
| logging         | Log Configuration                     |
| loop-prevention | Loop-prevention configuration         |
| mac             | MAC configuration                     |
| management-vlan | Management VLAN configuration         |
| mirror          | Mirror configuration                  |
| ntp             | Network Time Protocol                 |
| port-security   | Port Security                         |
| power           | Power-over-Ethernet Configuration     |
| qos             | QoS configuration                     |
| smtp            | SMTP Configuration                    |
| snmp            | SNMP information                      |
| spanning-tree   | Spanning-tree configuration           |
| username        | Local User                            |
| vlan            | VLAN configuration                    |

## 4-1.25 ntp

Configure NTP.

### Syntax

**ntp host** {<ip\_address>|<hostname>} port <1-65535>

#### Parameter

|                   |                     |
|-------------------|---------------------|
| <b>ip_address</b> | Valid IP v4 address |
| <b>hostname</b>   | Host name           |

#### Example

```
C62-050-30-A(config)# ntp host 118.163.81.61 port 123
C62-050-30-A(config)#
```

### 4-1.26 port-security

Port security configuration.

#### Syntax

**port-security**

**port-security rate-limit** <1-600>

#### Parameter

|                   |                                                        |                                 |
|-------------------|--------------------------------------------------------|---------------------------------|
| <b>rate-limit</b> | Rate limiter to protect the CPU against excessive load |                                 |
|                   | <1-600>                                                | Rate in packet per second (pps) |

#### Example

```
C62-050-30-A(config)# port-security rate-limit 300
C62-050-30-A(config)#
```

### 4-1.27 power

Power over Ethernet (PoE) configuration.

## Syntax

**power** inline auto-check

**power** inline force-mode {<disable>|<enable>}

**power** inline limit-mode {<class>|<port>}

**power** inline schedule <1-10> name <profile\_name>

**power** inline schedule <1-10> weekday <1-7> {<start>|<end>} hour <0-23> minute <0-59>

**power** inline cycle start enable

**power** inline cycle time <1-30>

## Parameter

|                   |                                                                                              |                                                                                                         |
|-------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>auto-check</b> | The auto refresh function of the interface from the point of view of inline power management |                                                                                                         |
| <b>force-mode</b> | PoE power force mode of the rtk system                                                       |                                                                                                         |
|                   | disable                                                                                      | The power force mode disable                                                                            |
|                   | enable                                                                                       | The power force mode enable                                                                             |
| <b>limit-mode</b> | PoE power limit mode of the system                                                           |                                                                                                         |
|                   | class                                                                                        | The power limit of a port is fixed regardless of the class of the discovered PD                         |
|                   | port                                                                                         | The power limit of a port is based on the class of the PD as detected during the classification process |
| <b>schedule</b>   | Schedule Profile Configuration                                                               |                                                                                                         |

## Example

```
C62-050-30-A(config)# power inline limit-mode class
C62-050-30-A(config)#
```

## 4-1.28 qos

Quality of Service.

## Syntax

**qos**

**qos** map {<cos-queue>|<dscp-queue>|<precedence-queue>|<queue-cos>|<queue-dscp>|

<queue-precedence>}

**qos** queue strict-priority-num <0-8>

**qos** queue weight <1-8>

**qos** trust {<cos>|<cos-dscp>|<dscp>|<precedence>}

#### Parameter

|              |                                                                              |                                                                                                             |
|--------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>map</b>   | Configure the QoS maps                                                       |                                                                                                             |
|              | cos-queue                                                                    | Map assigned CoS values to select an egress queue. Use the command no form to return to the default values. |
|              | dscp-queue                                                                   | Modify the DSCP to queue map.                                                                               |
|              | precedence-queue                                                             | Modify the IP Precedence to queue map.                                                                      |
|              | queue-cos                                                                    | Modify the queue to CoS map.                                                                                |
|              | queue-dscp                                                                   | Modify the queue to DSCP map.                                                                               |
|              | queue-precedence                                                             | Modify the queue to ip precedence map.                                                                      |
| <b>queue</b> | Queue configuration                                                          |                                                                                                             |
|              | strict-priority-num                                                          | Configure the number of strict priority queues                                                              |
|              | weight                                                                       | Configure weights to egress queues. Use no form to return to default values                                 |
| <b>trust</b> | Configure the global trust mode . Use the no form to return untrusted state. |                                                                                                             |
|              | cos                                                                          | Specify trust mode cos.                                                                                     |
|              | cos-dscp                                                                     | Specify trust mode Cos-DSCP.                                                                                |
|              | dscp                                                                         | Specify trust mode DSCP.                                                                                    |
|              | precedence                                                                   | Specify trust mode precedence                                                                               |

#### Example

```
C62-050-30-A(config)# qos
C62-050-30-A(config)#
```

#### 4-1.29 smtp

Simple Mail Transfer Protocol(SMTP) configuration.

## Syntax

**smtp**

**smtp** class (auth-failed|cold-start|di|do|linkUpDown|poe-Fail|poe-OnOff|warm-start)

**smtp** {<email\_1>|< email\_2>|< email\_3>|< email\_4>|< email\_5>|< email\_6>|<mail-server>|<password>|<return-path>|<sender>|<username>} WORD<0-48>

## Parameter

|                    |                              |                                       |
|--------------------|------------------------------|---------------------------------------|
| <b>email_1</b>     | Set SMTP email 1 address     | WORD<0-48>                            |
| <b>email_2</b>     | Set SMTP email 2 address     |                                       |
| <b>email_3</b>     | Set SMTP email 3 address     |                                       |
| <b>email_4</b>     | Set SMTP email 4 address     |                                       |
| <b>email_5</b>     | Set SMTP email 5 address     |                                       |
| <b>email_6</b>     | Set SMTP email 6 address     |                                       |
| <b>mail-server</b> | Set SMTP mail server address |                                       |
| <b>password</b>    | Set SMTP password            |                                       |
| <b>return-path</b> | Set SMTP return address      |                                       |
| <b>sender</b>      | Set SMTP sender address      |                                       |
| <b>username</b>    | Set SMTP user name           |                                       |
| <b>class</b>       | SMTP event class setting     |                                       |
|                    | auth-failed                  | Set SMTP authentication failure event |
|                    | cold-start                   | Set SMTP bootup cold start-up event   |
|                    | di                           | Set SMTP DI event                     |
|                    | do                           | Set SMTP DO event                     |
|                    | linkUpDown                   | Set SMTP link up and down event       |
|                    | poe-Fail                     | Set SMTP PoE failure event            |
|                    | poe-OnOff                    | Set SMTP PoE on/off event             |
|                    | warm-start                   | Set SMTP bootup warm start-up event   |

## Example

```
C62-050-30-A(config)# smtp class auth-failed
C62-050-30-A(config)#
```

## 4-1.30 snmp

SNMP server's configuration.

### Syntax

**snmp**

**snmp** community <community\_string> (address|group|ro|rw)

**snmp** engineid ENGINEID

**snmp** engineid default

**snmp** engineid remote {<A.B.C.D>|<HOSTNAME>|<X:X::X:X>}

**snmp** group NAME version (1|2c|3) noauth read-view NAME write-view NAME

**snmp** host {<ipv4\_addr>|<hostname>|<ipv6\_addr>}

**snmp** trap (auth-failed|cold-start|di|do|linkUpDown|poe-Fail|poe-OnOff|warm-start)

**snmp** user USER\_NAME group GROUP\_NAME auth (md5|sha) AUTHPASSWD priv (aes|des) PRIVPASSWD (ro|rw)

**snmp** view VIEW\_NAME subtree Subtree\_OID viewtype (excluded|included)

### Parameter

|                  |                                       |                                                  |                                 |
|------------------|---------------------------------------|--------------------------------------------------|---------------------------------|
| <b>community</b> | Set community or security name string |                                                  |                                 |
|                  | <community_string>                    | Community name (maximum length is 20 characters) |                                 |
|                  |                                       | ro                                               | Set community access read_only  |
|                  |                                       | rw                                               | Set community access read_write |
| <b>host</b>      | Trap or inform host                   |                                                  |                                 |
| <b>engineid</b>  | SNMP engine id setting                |                                                  |                                 |
| <b>group</b>     | Set access group string               |                                                  |                                 |
| <b>user</b>      | Set user Settings                     |                                                  |                                 |
| <b>view</b>      | Set view string                       |                                                  |                                 |
| <b>trap</b>      | SNMP class trap setting               |                                                  |                                 |
|                  | auth                                  | Set snmp authentication failure trap             |                                 |
|                  | cold-start                            | Set snmp bootup cold start-up trap               |                                 |
|                  | linkUpDown                            | Set snmp link up and down trap                   |                                 |
|                  | warm-start                            | Set snmp bootup warm start-up trap               |                                 |

|  |           |                                 |
|--|-----------|---------------------------------|
|  | di        | Set SNMP DI event trap          |
|  | do        | Set SNMP DO event trap          |
|  | poe-Fail  | Set SNMP PoE Failure event trap |
|  | poe-OnOff | Set SNMP PoE On/Off event trap  |

### Example

```
C62-050-30-A(config)# snmp
C62-050-30-A(config)# snmp community private rw
C62-050-30-A(config)#
```

## 4-1.31 spanning-tree

Spanning Tree protocol.

**Table : configure –spanning-tree Commands**

| Command                  | Function                        |
|--------------------------|---------------------------------|
| <b>mst configuration</b> | Enter MST configuration submode |

### Syntax

**spanning-tree**

**spanning-tree** bpdu (filtering|flooding)

**spanning-tree** forward-delay <4-30>

**spanning-tree** hello-time <1-10>

**spanning-tree** max-hops <1-40>

**spanning-tree** maximum-age <6-40>

**spanning-tree** mode (stp|rstp|mstp)

**spanning-tree** mst <0-15> priority <0-61440>

**spanning-tree** pathcost method (long|short)

**spanning-tree** priority <0-61440>

**spanning-tree** tx-hold-count <1-10>

## Parameter

|                      |                                                                       |
|----------------------|-----------------------------------------------------------------------|
| <b>bpdu</b>          | Configure default bpdu action.                                        |
| <b>filtering</b>     | BPDU packets are filtered on STP-disable ports.                       |
| <b>flooding</b>      | BPDU packets are flooding to all ports when STP-disable.              |
| <b>forward-delay</b> | Configure forward-delay parameter.                                    |
| <b>&lt;4-30&gt;</b>  | Forward-delay time in seconds.                                        |
| <b>hello-time</b>    | Configure hello-time parameter.                                       |
| <b>&lt;1-10&gt;</b>  | Configure hello time in seconds.                                      |
| <b>max-hops</b>      | Configure MSTP bridge max hop count.                                  |
| <b>&lt;1-40&gt;</b>  | Configure maximum number of hops.                                     |
| <b>maximum-age</b>   | Configure the age time for receiving control packet from root switch. |
| <b>&lt;6-40&gt;</b>  | Age time of control packet from root switch.                          |
| <b>mode</b>          | Spanning tree protocol type                                           |
| <b>mst</b>           | MSTP bridge instance                                                  |
| <b>&lt;0-15&gt;</b>  | MST instance ID , 0 is for CIST (0..15)                               |
| <b>priority</b>      | Priority of the instance                                              |
| <b>spanning-tree</b> | Enable spanning-tree protocol.                                        |
| <b>tx-hold-count</b> | Configure tx-hold-count in seconds.                                   |
| <b>&lt;1-10&gt;</b>  | Tx-hold counts.                                                       |

## Example

```
C62-050-30-A(config)# spanning-tree mode stp
C62-050-30-A(config)#
```

### 4-1.31.1 mst configuration

STP bridge instance configuration submenu.

#### Syntax

**spanning-tree mst configuration**

**instance** <0-15> vlan <vlan\_list>

**name** <word32>

**revision** <0-65535>

#### Parameter

|                          |                                             |
|--------------------------|---------------------------------------------|
| <b>mst configuration</b> | Enter MST configuration submode.            |
| <b>Instance</b>          | Sets spanning-tree parameters of instances. |
| <b>&lt;0-15&gt;</b>      | MST instance ID , 0 is for CIST (0..15)     |
| <b>vlan</b>              | Add the MSTI-to-VLAN mapping.               |
| <b>&lt;vlan_list&gt;</b> | List of VLAN numbers, 1~4094.               |
| <b>name</b>              | Name keyword                                |
| <b>&lt;word32&gt;</b>    | Name of the bridge (word32)                 |
| <b>revision</b>          | Set revision level.                         |
| <b>&lt;0-65535&gt;</b>   | Revision level (0..65535)                   |

#### Example

```
C62-050-30-A(config)# spanning-tree mst 7 vlan 10
C62-050-30-A(config)#
```

### 4-1.32 system

Set the system information configuration.

#### Syntax

**system** contact <word255>

**system** location <word255>

**system** name <word32>

#### Parameter

|                 |                   |                           |
|-----------------|-------------------|---------------------------|
| <b>contact</b>  | Set host contact  |                           |
|                 | <word255>         | contact string (word255)  |
| <b>location</b> | Set host location |                           |
|                 | <word255>         | location string (word255) |
| <b>name</b>     | Set host name     |                           |
|                 | <word32>          | name string (word32)      |

#### Example

```
C62-050-30-A(config)# system contact "Contact here"  
C62-050-30-A(config)#
```

### 4-1.33 username

Enable telnet server.

#### Syntax

**username** WORD<0-32> {<encrypted>|<password>} <PASSWORD>

#### Example

```
C62-050-30-A(config)# username "user_1" password "pwd_1"  
C62-050-30-A(config)#
```

### 4-1.34 vlan

VLAN configuration.

#### Syntax

**vlan** <vlan\_list>

#### Parameter

|                          |                                                           |
|--------------------------|-----------------------------------------------------------|
| <b>&lt;vlan_list&gt;</b> | VLAN List (e.g. 3,6-8): The range of VLAN ID is 1 to 4094 |
|--------------------------|-----------------------------------------------------------|

#### Example

```
C62-050-30-A(config)# vlan 3,6-8
C62-050-30-A(config)#
```

### 4-1.35 dido

Digital I/O Configuration.

#### Syntax

**dido** di {<abnormal>|<normal>} event-description <event\_description>

**dido** di normal-mode {<high>|<low>}

**dido** di trigger-mode {<off>|<on>}

**dido** do auto-recovery

**dido** do mode {<close>|<open>}

**dido** do normal-mode {<close>|<open>}

**dido** do pulse-duration <1-300>

**dido** do value> {<close>|<open>}

#### Parameter

|           |                                  |                                                                                              |                        |
|-----------|----------------------------------|----------------------------------------------------------------------------------------------|------------------------|
| <b>di</b> | Digital Input (DI) Configuration |                                                                                              |                        |
|           | abnormal /<br>normal             | DI Abnormal Event Description Configuration /<br>DI Abnormal Event Description Configuration |                        |
|           |                                  | event-description                                                                            | DI event Configuration |
|           |                                  | event_description                                                                            | DI event description   |
|           | normal-mode                      | DI Normal Mode Configuration                                                                 |                        |
| high      |                                  | Define DI High as Normal Mode                                                                |                        |

|           |                                   |                                           |                                 |
|-----------|-----------------------------------|-------------------------------------------|---------------------------------|
|           |                                   | low                                       | Define DI Low as Normal Mode    |
|           | trigger-mode                      | DI trigger mode configuration             |                                 |
|           |                                   | off                                       | Off                             |
|           |                                   | on                                        | On                              |
| <b>do</b> | Digital Output (DO) Configuration |                                           |                                 |
|           | auto-recovery                     | DO auto recovery                          |                                 |
|           | mode                              | DO Normal Mode Configuration              |                                 |
|           |                                   | close                                     | Define DO Close as Normal Mode  |
|           |                                   | open                                      | Define DO Open as Normal Mode   |
|           | normal-mode                       | DO Normal Mode Configuration              |                                 |
|           |                                   | close                                     | Define DO Close as Normal Mode  |
|           |                                   | open                                      | Define DO Open as Normal Mode   |
|           | pulse-duration                    | Timer interval with the number of seconds |                                 |
|           |                                   | <1-300>                                   | Timer interval range in seconds |
|           | value                             | DO Normal Mode Configuration              |                                 |
|           |                                   | close                                     | Define DO Close as Normal Mode  |
| open      |                                   | Define DO Open as Normal Mode             |                                 |

### Example

```
C51-244-30-370 (config) # dido do auto-recovery
C51-244-30-370 (config) #
```

Copy from source to destination.

### Syntax

```
copy backup-config {<running-config>|<startup-config>|<tftp://server/path-to-file>}
```

```
copy flash:image {<flash:image>|<tftp://server/path-to-file>}
```

```
copy running-config {< backup-config>|<startup-config>|<tftp://server/path-to-file>}
```

```
copy startup-config {<running-config>|<backup-config>|<tftp://server/path-to-file>}
```

```
copy tftp://server/path-to-file {<backup-config>|<flash:image>|<running-config>|<startup-config>|<tftp://server/path-to-file>}
```

### Parameter

|                                   |                              |
|-----------------------------------|------------------------------|
| <b>backup-config</b>              | Backup configuration.        |
| <b>flash:image</b>                | Copy from flash: file system |
| <b>running-config</b>             | Running configuration        |
| <b>startup-config</b>             | Startup configuration        |
| <b>tftp://server/path-to-file</b> | Copy from tftp: file system  |

### Example

```
C62-050-30-A# copy tftp://192.168.137.100/vmlinux.bix flash://image
Downloading file. Please wait...
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Correct FW[C62-050-30-A_v1.2.3.7] for model[C62-050-30-A]
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Upgrade firmware success. Do you want to reboot now? (y/n)y
```

Table : DEBUG Commands

| Command       | Function                          |
|---------------|-----------------------------------|
| acl           | acl                               |
| igmp          | igmp                              |
| l2            | l2                                |
| lag           | lag                               |
| lldp          | lldp                              |
| platform      | platform                          |
| power         | power-over-ethernet configuration |
| psecure       | port security                     |
| spanning-tree | spanning-tree configuration       |
| time          | time                              |
| vlan          | vlan                              |

Delete a file from the flash file system.

### Syntax

```
delete {<backup-config>|<flash:image>|<startup-config>|<system>}
```

### Parameter

|                       |                                          |                 |
|-----------------------|------------------------------------------|-----------------|
| <b>backup-config</b>  | Backup configuration.                    |                 |
| <b>flash:image</b>    | Delete a file from the flash file system |                 |
| <b>startup-config</b> | Startup configuration                    |                 |
| <b>system</b>         | Run time firmware image                  |                 |
|                       | <b>image0</b>                            | Runtime image 0 |
|                       | <b>image1</b>                            | Runtime image 1 |

### Example

```
C62-050-30-A# delete flash://startup-config
Delete flash://startup-config [y/n] y
*Dec 04 2020 11:10:35: %SYSTEM-5: System restore to default
Do you want to reload the system to take effect? [y/n]
```

Turn off privileged mode command.

### Syntax

**disable**

### Example

```
C62-050-30-A# disable
```

End current mode and change to enable mode.

### Syntax

**end**

### Example

```
C62-050-30-A# end
```

Exit current mode and back to previous mode.

### Syntax

**exit**

### Parameter

### Example

```
C62-050-30-A# exit
```

Turn off debug mode.

### Syntax

**no debug** {<acl>|<igmp>|<l2>|<lag>|<lldp>|<platform>|<power>|<psecure>|<spanning-tree>|<time>|<vlan>}

### Parameter

**Table : DEBUG Commands**

| Command       | Function                    |
|---------------|-----------------------------|
| acl           | acl                         |
| igmp          | igmp                        |
| l2            | l2                          |
| lag           | lag                         |
| lldp          | lldp                        |
| platform      | platform                    |
| psecure       | port security               |
| spanning-tree | spanning-tree configuration |
| time          | time                        |
| vlan          | vlan                        |

### Example

```
C62-050-30-A# no debug l2
```

Send ICMP ECHO\_REQUEST to network hosts

### Syntax

```
ping {<ipv4_addr>|<HOSTNAME>|<ipv6_addr>} {<cr>|<count>} <1-65535>
```

### Parameter

|             |                     |
|-------------|---------------------|
| <ipv4_addr> | Valid ipv4 address. |
| HOSTNAME    | Host name           |
| <ipv6_addr> | Valid ipv6 address. |

### Example

```
C62-050-30-A# ping 1.1.1.1 count 2
PING 1.1.1.1 (1.1.1.1): 56 data bytes
64 bytes from 1.1.1.1: icmp_seq=0 ttl=54 time=20.0 ms
64 bytes from 1.1.1.1: icmp_seq=1 ttl=54 time=10.0 ms

--- 1.1.1.1 ping statistics ---
2 packets transmitted, 2 packets received, 0% packet loss
round-trip min/avg/max = 10.0/15.0/20.0 ms
C62-050-30-A#
```

Halt and perform a warm restart.

### Syntax

**reboot**

### Example

```
C62-050-30-A# reboot
*Dec 04 2020 14:11:15: %SYSTEM-4: System reboot
```

Restore to default.

### Syntax

**restore-defaults**

**restore-defaults** keep ip

### Parameter

|             |                            |                  |
|-------------|----------------------------|------------------|
| <b>keep</b> | Keep configuration options |                  |
|             | ip                         | IP Configuration |

### Example

```
C62-050-30-A# restore-defaults
*Dec 04 2020 14:12:25: %SYSTEM-5: System restore to default
System: restore factory defaults. Do you want to reboot now? (y/n)y
Rebooting now...
```

Save running configuration to flash.

### Syntax

**save**

### Example

```
C62-050-30-A# save
```

Table : SHOW Commands

| Command           | Function                                              |
|-------------------|-------------------------------------------------------|
| backup-config     | Backup configuration                                  |
| bootvar           | Show boot attributes                                  |
| cable-diag        | Cable Diagnostics                                     |
| clock             | Display the time and date from the system clock       |
| cpu               | Displays information about the system CPU utilization |
| custom            | Custom Module configuration                           |
| debugging         | Debugging information                                 |
| dos               | DoS information                                       |
| errdisable        | Error Disable                                         |
| fiber-transceiver | Fiber ports diagnostics                               |
| flash             | Flash Operations                                      |
| history           | List the last several history commands                |
| info              | Basic information                                     |
| interfaces        | Interface status and configuration                    |
| ip                | IP information                                        |
| ipv6              | IPv6 information                                      |
| lACP              | LACP Configuration                                    |
| lag               | Link Aggregation Group Configuration                  |
| line              | To identify a specific line for configuration         |
| lldp              | LLDP information                                      |
| logging           | Log Configuration                                     |
| loop-prevention   | Loop-prevention configuration                         |
| mac               | MAC configuration                                     |
| management-vlan   | Management VLAN configuration                         |
| memory            | Memory statistics                                     |
| mirror            | Mirror configuration                                  |
| ntp               | Simple Network Time Protocol (NTP) information        |
| port-security     | Port Security                                         |
| power             | Power-over-Ethernet Configuration                     |
| qos               | QoS configuration                                     |
| running-config    | Running configuration                                 |

|                |                                     |
|----------------|-------------------------------------|
| smtp           | SMTP information                    |
| snmp           | SNMP information                    |
| spanning-tree  | Show spanning tree information      |
| startup-config | Startup configuration               |
| storm-control  | Storm control configuration         |
| username       | Local User                          |
| users          | Display information about users     |
| version        | System hardware and software status |
| vlan           | VLAN configuration                  |

---

## 16-1 backup-config

Backup configuration

### Syntax

```
show backup-config
```

### Example

```
C62-050-30-A# show backup-config
```

## 16-2 bootvar

Boot attributes.

### Syntax

```
show bootvar
```

### Example

```

C62-050-30-A# show bootvar
Image Version      Date              Status           File Name
-----
0      C62-050-30-A_v2.0.1.3_vk 2022-01-11 13:52:13  Active*
1      C62-050-30-A_v2.0.1.3_vk 2022-01-11 13:52:13  Not active

"*" designates that the image was selected for the next boot
C62-050-30-A#

```

## 16-3 cable-diag

Cable Diagnostics.

### Syntax

**show** cable-diag interfaces GigabitEthernet <port\_list>

### Parameter

|                   |                                    |                                         |                 |
|-------------------|------------------------------------|-----------------------------------------|-----------------|
| <b>interfaces</b> | Interface status and configuration |                                         |                 |
|                   | <b>GigabitEthernet</b>             | Gigabit ethernet interface to configure |                 |
|                   |                                    | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z |

### Example

```

C62-050-30-A# show cable-diag interfaces GigabitEthernet 1
Port   | Speed | Local pair | Pair length | Pair status
-----+-----+-----+-----+-----
gil    | auto  | Pair A    | 0.52        | Open
        |       | Pair B    | 0.50        | Open
        |       | Pair C    | 0.51        | Open
        |       | Pair D    | 0.51        | Open
C62-050-30-A#

```

## 16-4 clock

The time and date from the system clock.

### Syntax

```
show clock [<cr>|<detail>]
```

### Parameter

|               |                                            |
|---------------|--------------------------------------------|
| <b>detail</b> | Show timezone and summertime configuration |
|---------------|--------------------------------------------|

### Example

```
C62-050-30-A# show clock
2022-01-01 08:35:52
Time set manually
C62-050-30-A# show clock detail
2022-01-01 08:35:59
Time set manually
Time zone:
Acronym is
Offset is UTC+8
C62-050-30-A#
```

## 16-5 cpu

CPU information.

### Syntax

```
show cpu input rate
```

```
show cpu utilization
```

### Parameter

|                    |                                                       |                                  |
|--------------------|-------------------------------------------------------|----------------------------------|
| <b>input</b>       | Show rate of input frames to CPU.                     |                                  |
|                    | rate                                                  | Show rate of input frames to CPU |
| <b>utilization</b> | Displays information about the system CPU utilization |                                  |

### Example

```
C62-050-30-A# show cpu input rate
Input Rate to CPU is 0 pps
C62-050-30-A# show cpu utilization
CPU utilization
-----
Current: 53%
C62-050-30-A#
```

## 16-6 custom

Custom Module configuration.

### Syntax

**show** custom enable

**show** custom enable interface GigabitEthernet <port\_list>

**show** custom enable interface LAG <lag\_list>

### Parameter

|                   |                                    |                                         |                 |
|-------------------|------------------------------------|-----------------------------------------|-----------------|
| <b>interfaces</b> | Interface status and configuration |                                         |                 |
|                   | <b>GigabitEthernet</b>             | Gigabit ethernet interface to configure |                 |
|                   |                                    | <port_list>                             | Port List X-Y,Z |
|                   | <b>LAG</b>                         | IEEE 802.3 Link Aggregation interface   |                 |
| <lag_list>        |                                    | LAG List X-Y,Z                          |                 |

### Example

```
C62-050-30-A# show custom enable interfaces GigabitEthernet 3,6-8
  Port | Status
-----+-----
    gi3 | disabled
    gi6 | disabled
    gi7 | disabled
    gi8 | disabled
C62-050-30-A#
```

## 16-7 debugging

Debugging information.

### Syntax

```
show debugging
```

### Example

```
C62-050-30-A# show debugging
C62-050-30-A#
```

## 16-8 dos

DoS information.

### Syntax

```
show dos
```

```
show dos interface GigabitEthernet <port_list>
```

```
show dos interface LAG <lag_list>
```

## Parameter

|                   |                                    |                                         |                 |
|-------------------|------------------------------------|-----------------------------------------|-----------------|
| <b>interfaces</b> | Interface status and configuration |                                         |                 |
|                   | <b>GigabitEthernet</b>             | Gigabit ethernet interface to configure |                 |
|                   |                                    | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z |
|                   | <b>LAG</b>                         | IEEE 802.3 Link Aggregation interface   |                 |
|                   |                                    | <b>&lt;lag_list&gt;</b>                 | LAG List X-Y,Z  |

## Example

```
C62-050-30-A# show dos
  Type                               | State (Length)
-----+-----
  DMAC equal to SMAC                 | enabled
  Land (DIP = SIP)                   | enabled
  UDP Blat (DPORT = SPORT)           | enabled
  TCP Blat (DPORT = SPORT)           | enabled
  POD (Ping of Death)                | enabled
  IPv6 Min Fragment Size              | enabled (1240 Bytes)
  ICMP Fragment Packets               | enabled
  IPv4 Ping Max Packet Size           | enabled (512 Bytes)
  IPv6 Ping Max Packet Size           | enabled (512 Bytes)
  Smurf Attack                        | enabled (Netmask Length: 0)
  TCP Min Header Length               | enabled (20 Bytes)
  TCP Syn (SPORT < 1024)              | enabled
  Null Scan Attack                    | enabled
  X-Mas Scan Attack                   | enabled
  TCP SYN-FIN Attack                  | enabled
  TCP SYN-RST Attack                  | enabled
  TCP Fragment (Offset = 1)           | enabled
C62-050-30-A#
```

## 16-9 errdisable

Error Disable.

## Syntax

**show errdisable recovery**

### Example

```
C62-050-30-A# show errdisable recovery
ErrDisable Reason      | Timer Status
-----+-----
          bpduguard | disabled
          selfloop  | disabled
    broadcast-flood | disabled
unknown-multicast-flood | disabled
          unicast-flood | disabled
              acl | disabled
    psecure-violation | disabled
      dhcp-rate-limit | disabled
          arp-inspection | disabled

Timer Interval : 300 seconds

Interfaces that will be enabled at the next timeout:

Port | Error Disable Reason      | Time Left
-----+-----+-----
C62-050-30-A#
```

## 16-10 fiber-transceiver

Fiber ports diagnostics.

### Syntax

**show fiber-transceiver interfaces GigabitEthernet <port\_list>**

### Parameter

|                   |                                    |                                         |
|-------------------|------------------------------------|-----------------------------------------|
| <b>interfaces</b> | Interface status and configuration |                                         |
|                   | <b>GigabitEthernet</b>             | Gigabit ethernet interface to configure |

|  |  |             |                 |
|--|--|-------------|-----------------|
|  |  | <port_list> | Port List X-Y,Z |
|--|--|-------------|-----------------|

### Example

```

C62-050-30-A# show fiber-transceiver interfaces GigabitEthernet 1-5
Port | Temperature | Voltage | Current | Output power | Input power |
OE-Present | LOS
| [C] | [Volt] | [mA] | [mWatt] | [mWatt] |
=====
=====
gi1 |
gi2 |
gi3 |
gi4 |
gi5 |

Temp - Internally measured transceiver temperature
Voltage - Internally measured supply voltage
Current - Measured TX bias current
Output Power - Measured TX output power in milliWatts
Input Power - Measured RX received power in milliWatts
OE-Present - SFP Present or Not Present
LOS - Loss of signal
N/A - Not Available, N/S - Not Supported, W - Warning, E - Error
C62-050-30-A#

```

## 16-11 flash

Flash Operations.

### Syntax

**show flash**

### Example

```
C62-050-30-A# show flash
```

| File Name       | File Size | Modified            |
|-----------------|-----------|---------------------|
| -----           | -----     | -----               |
| startup-config  | 948       | 2022-01-01 00:08:49 |
| ssl_cert        | 1277      | 2022-01-01 00:00:59 |
| image0 (active) | 10448078  | 2022-01-11 13:52:13 |
| image1 (backup) | 10448078  | 2022-01-11 13:52:13 |

```
C62-050-30-A#
```

## 16-12 history

Show CLI command history.

### Syntax

```
show history
```

### Example

```
C62-050-30-A# show history
Maximun History Count: 128
-----
1. conf
C62-050-30-A#
```

## 16-13 info

Basic information.

### Syntax

```
show info
```

### Example

```

C62-050-30-A# show info
System Name      : C62-050-30-A
System Location  :
System Contact   :
MAC Address      : 68:8D:B6:01:02:03
IP Address       : 192.168.11.59
Subnet Mask      : 255.255.255.0
Loader Version   : 2.0.0.1
Loader Date      : Sep 27 2022 - 14:14:01
Firmware Version : 2.03.04
Firmware Date    : Jan 10 2023 - 03:46:30
System Object ID : 1.3.6.1.4.1.58360.100.10
System Up Time   : 0 days, 2 hours, 5 mins, 50 secs
C62-050-30-A#

```

## 16-14 interface

Interface status and configuration.

### Syntax

**show** interfaces GigabitEthernet <port\_list> {<cr>|<protected>|<status>}

**show** interfaces LAG <lag\_list> {<cr>|<protected>|<status>}

**show** interfaces switchport GigabitEthernet <port\_list>

**show** interfaces switchport LAG <lag\_list>

### Parameter

|                   |                                       |                                         |                  |                                               |
|-------------------|---------------------------------------|-----------------------------------------|------------------|-----------------------------------------------|
| <b>interfaces</b> | Interface status and configuration    |                                         |                  |                                               |
|                   | <b>GigabitEthernet</b>                | Gigabit ethernet interface to configure |                  |                                               |
|                   |                                       | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z  |                                               |
|                   |                                       |                                         | <b>protected</b> | Configure an interface to be a protected port |
|                   |                                       |                                         | <b>status</b>    | Port status information                       |
| <b>LAG</b>        | IEEE 802.3 Link Aggregation interface |                                         |                  |                                               |

|  |                   |                                    |                                         |                                               |  |
|--|-------------------|------------------------------------|-----------------------------------------|-----------------------------------------------|--|
|  |                   | <b>&lt;lag_list&gt;</b>            | LAG List X-Y,Z                          |                                               |  |
|  |                   |                                    | protected                               | Configure an interface to be a protected port |  |
|  |                   |                                    | status                                  | Port status information                       |  |
|  | <b>switchport</b> | Set switching mode characteristics |                                         |                                               |  |
|  |                   | <b>GigabitEthernet</b>             | Gigabit ethernet interface to configure |                                               |  |
|  |                   |                                    | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z                               |  |
|  |                   | <b>LAG</b>                         | IEEE 802.3 Link Aggregation interface   |                                               |  |
|  |                   |                                    | <b>&lt;lag_list&gt;</b>                 | LAG List X-Y,Z                                |  |

### Example

```
C62-050-30-A# show interfaces GigabitEthernet 2-3 status
Port Status      Duplex Speed  Type
gi2  notconnect  auto   auto   Copper
gi3  notconnect  auto   auto   Copper
C62-050-30-A#
```

## 16-15 ip

Internet Protocol.

### Syntax

**show ip**

**show ip dhcp** {<cr>|<server>}

**show ip http**

**show ip https**

**show ip igmp filter**

**show ip igmp filter interfaces** GigabitEthernet <port\_list>

**show ip igmp filter interfaces** LAG <lag\_list>

**show ip igmp max-group**

**show ip igmp max-group action** {<cr>|interfaces GigabitEthernet <port\_list>|interfaces LAG <lag\_list>}

**show ip igmp max-group interfaces** GigabitEthernet <port\_list>

**show ip igmp max-group interfaces** LAG <lag\_list>

**show ip igmp profile** {<cr>|<1-128>}

**show ip igmp snooping** {<cr>|<forward-all>|<groups>|<querier>|<router>|<vlan>}

#### Parameter

|              |                                    |                             |                       |
|--------------|------------------------------------|-----------------------------|-----------------------|
| <b>dhcp</b>  | DHCP information                   |                             |                       |
|              | <b>server</b>                      | DHCP Server                 |                       |
| <b>http</b>  | HTTP server configuration          |                             |                       |
| <b>https</b> | HTTPS server configuration         |                             |                       |
| <b>igmp</b>  | Interface status and configuration |                             |                       |
|              | <b>filter</b>                      | IGMP port filter            |                       |
|              | <b>max-group</b>                   | IGMP port group limit num   |                       |
|              | <b>profile</b>                     | IGMP profile configuration  |                       |
|              | <b>snooping</b>                    | IGMP Snooping Configuration |                       |
|              |                                    | <forward-all>               | IPv4 forward all      |
|              |                                    | <groups>                    | IPv4 multicast groups |
|              |                                    | <querier>                   | Querier information   |
| <router>     |                                    | IPv4 multicast routers      |                       |
| <vlan>       | VLAN configuration                 |                             |                       |

#### Example

```
C62-050-30-A# show ip dhcp server
DHCP Server State : disabled
Start IPv4 Address: 0.0.0.0
End IPv4 Address: 0.0.0.0
Client Lease Time : 86400 seconds
C62-050-30-A#
```

## 16-16 ipv6

IPv6 configuration commands.

## Syntax

**show ipv6**

## Example

```
C62-050-30-A# show ipv6
##### Config #####
    State: enabled
    Auto Config: enabled
    DHCPv6: disabled
    Gateway: ::

##### Status #####
    IP Address: fe80::6a8d:b6ff:fe00:0/64
    Default Gateway: ::
C62-050-30-A#
```

## 16-17 lacp

Lacp configuration.

## Syntax

**show lacp**

## Example

```

C62-050-30-A# show lacp
Status: C - current, E - expired, D - defaulted
       a - attached, d - detached
State: A - activity, T - timeout(fast), G - aggregation
       S - synchronized, C - collecting, D - distributing
       F - defaulted, E - expired

LAG Port  Status          Sys ID          Port ID Sys Pri Port Pri Key      State
-----
C62-050-30-A#

```

## 16-18 lag

Link Aggregation Group Configuration.

### Syntax

**show lag**

### Example

```

C62-050-30-A# show lag
Load Balancing: src-dst-mac.

```

| Group ID | Type  | Ports |
|----------|-------|-------|
| 1        | ----- |       |
| 2        | ----- |       |
| 3        | ----- |       |
| 4        | ----- |       |
| 5        | ----- |       |
| 6        | ----- |       |
| 7        | ----- |       |
| 8        | ----- |       |

```

C62-050-30-A#

```

## 16-19 line

A specific line for configuration.

### Syntax

```
show line {<cr>|<console>|<ssh>|<telnet>}
```

### Parameter

|                |                         |
|----------------|-------------------------|
| <b>console</b> | Access CLI from console |
| <b>ssh</b>     | Access CLI from ssh     |
| <b>telnet</b>  | Access CLI from telnet  |

### Example

```
C62-050-30-A# show line
Console =====
  Session Timeout : 10 (minutes)
  History Count   : 128
  Password Retry  : 3
  Silent Time     : 0 (seconds)
Telnet =====
  Telnet Server   : disabled (23)
  Session Timeout : 10 (minutes)
  History Count   : 128
  Password Retry  : 3
  Silent Time     : 0 (seconds)
SSH =====
  SSH Server      : disabled (22)
  Session Timeout : 0 (minutes)
  History Count   : 128
  Password Retry  : 0
  Silent Time     : 0 (seconds)
C62-050-30-A#
```

## 16-20 lldp

show lldp configuration.

### Syntax

**show** lldp

**show** lldp interface GigabitEthernet <port\_list>

**show** lldp interface GigabitEthernet <port\_list> {<local-device>|<neighbor>|<statistics>|<tlvs-overloading>}

**show** lldp local-device

**show** lldp neighbor

**show** lldp statistics

### Parameter

|                     |                                                                                      |                                         |                 |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|-----------------------------------------|-----------------|--------------------------------------------------------------------------------------|
| <b>interfaces</b>   | Interface status and configuration                                                   |                                         |                 |                                                                                      |
|                     | <b>GigabitEthernet</b>                                                               | Gigabit ethernet interface to configure |                 |                                                                                      |
|                     |                                                                                      | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z |                                                                                      |
|                     |                                                                                      |                                         | local-device    | LLDP information that is advertised from a specific port                             |
|                     |                                                                                      |                                         | neighbor        | Information about neighboring devices discovered using Link Layer Discovery Protocol |
|                     |                                                                                      |                                         | statistics      | LLDP Statistics information                                                          |
| tlvs-overloading    | LLDP TLVs overloading information                                                    |                                         |                 |                                                                                      |
| <b>local-device</b> | LLDP information that is advertised from a specific port                             |                                         |                 |                                                                                      |
| <b>neighbor</b>     | Information about neighboring devices discovered using Link Layer Discovery Protocol |                                         |                 |                                                                                      |
| <b>statistics</b>   | LLDP Statistics information                                                          |                                         |                 |                                                                                      |

### Example

```
C62-050-30-A# show lldp neighbor
```

```
Port | Device ID          | Port ID          | SysName          | Capabilities      | TTL
----+-----+-----+-----+-----+-----
gi8  | 00:68:8D:B6:51:04 | 6                | H51-044-90-250  | Bridge           | 117
C62-050-30-A#
```

## 16-21 logging

Log Configuration.

### Syntax

```
show logging
```

```
show logging {<buffered>|<file>|<event>}
```

### Parameter

|                 |                                                 |
|-----------------|-------------------------------------------------|
| <b>buffered</b> | Buffered logging                                |
| <b>file</b>     | File logging                                    |
| <b>event</b>    | Display syslog class of event enable or disable |

### Example

```

C62-050-30-A# show logging

Logging service is enabled

Console Logging: level notice
Buffer Logging : level notice
File Logging   : disabled

Buffer Logging
-----
*Jan 01 2000 00:00:31: SYSTEM-5: New console connection for user admin,
source async ACCEPTED
*Jan 01 2000 00:00:26: PORT-5: Interface GigabitEthernet10 link up
*Jan 01 2000 00:00:15: PORT-5: Interface GigabitEthernet9 link up
*Jan 01 2000 00:00:13: SYSTEM-5: Cold startup
C62-050-30-A#

```

## 16-22 loop-prevention

Show loop prevention

### Syntax

**show** loop-prevention

**show** loop-prevention interfaces GigabitEthernet <port\_list>

**show** loop-prevention interfaces LAG <lag\_list>

### Parameter

|                         |                                    |                                         |                 |
|-------------------------|------------------------------------|-----------------------------------------|-----------------|
| <b>interfaces</b>       | Interface status and configuration |                                         |                 |
|                         | <b>GigabitEthernet</b>             | Gigabit ethernet interface to configure |                 |
|                         |                                    | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z |
|                         | <b>LAG</b>                         | IEEE 802.3 Link Aggregation interface   |                 |
| <b>&lt;lag_list&gt;</b> |                                    | LAG List X-Y,Z                          |                 |

## Example

```
C62-050-30-A# show loop-prevention
Loop Prevention:                Disabled
Loop Prevention Tx Interval:    2
Loop Prevention Recovery Interval: 16
Loop Prevention switch_priority: 0x800000
Loop Prevention hop cnt max:    10
Loop Prevention is root:       True
Loop Prevention Root Port:     N/A

C62-050-30-A#
```

## 16-23 mac

Mac Address Table information.

### Syntax

**show** mac address-table {<cr>|<aging-time>|<counters>|<dynamic>|<static>}

**show** mac address-table interface (GigabitEthernet <port\_list> | LAG <lag\_list>)

**show** mac address-table vlan <vlan\_id>

**show** mac address-table vlan <vlan\_id> interface (GigabitEthernet <port\_list> | LAG <lag\_list>)

### Parameter

|                   |                                    |                                         |                 |
|-------------------|------------------------------------|-----------------------------------------|-----------------|
| <b>interfaces</b> | Interface status and configuration |                                         |                 |
|                   | <b>GigabitEthernet</b>             | Gigabit ethernet interface to configure |                 |
|                   |                                    | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z |
|                   | <b>LAG</b>                         | IEEE 802.3 Link Aggregation interface   |                 |
|                   |                                    | <b>&lt;lag_list&gt;</b>                 | LAG List X-Y,Z  |

### Example

```
C62-050-30-A# show mac address-table
```

```
VID | MAC Address      | Type           | Ports
```

```
-----+-----+-----+-----
```

```
1 | 68:8D:B6:00:00:00 | Management    | CPU
```

```
1 | 00:33:33:33:33:33 | Dynamic       | gi15
```

```
1 | 94:C6:91:FA:13:05 | Dynamic       | gi11
```

```
1 | F0:2F:74:0A:D8:CC | Dynamic       | gi11
```

```
Total number of entries: 4
```

```
C62-050-30-A#
```

## 16-24 management-vlan

Management VLAN configuration.

### Syntax

```
show management-vlan
```

### Example

```
C62-050-30-A# show management-vlan
```

```
Management VLAN-ID : default(1)
```

```
C62-050-30-A#
```

## 16-25 memory

Memory statistics

### Syntax

```
show memory statistics
```

### Parameter

|                   |                   |
|-------------------|-------------------|
| <b>statistics</b> | Memory statistics |
|-------------------|-------------------|

## Example

```
C62-050-30-A# show memory statistics
      total (KB)   used (KB)   free (KB)   shared (KB)   buffer (KB)   cache (KB)
-----+-----+-----+-----+-----+-----
Mem:      125836     43608     82228         0         0         0
-/+ buffers/cache:      43608     82228
Swap:         0         0         0
C62-050-30-A#
```

## 16-26 mirror

Show mirror configuration

### Syntax

**show** mirror

**show** mirror session > <1-4>

### Example

```
C62-050-30-A# show mirror

Session 1 Configuration
Mirrored source   : Not Config
Destination port  : Not Config

Session 2 Configuration
Mirrored source   : Not Config
Destination port  : Not Config

Session 3 Configuration
Mirrored source   : Not Config
Destination port  : Not Config

Session 4 Configuration
Mirrored source   : Not Config
Destination port  : Not Config
C62-050-30-A#
```

## 16-27 ntp

Simple Network Time Protocol (NTP) information.

### Syntax

```
show ntp
```

### Example

```
C62-050-30-A# show ntp
NTP is Disabled
NTP Server address:
NTP Server port: 123
C62-050-30-A#
```

## 16-28 port-security

show port security.

### Syntax

```
show port-security {<cr>|<address>|interface GigabitEthernet <port _list>}
```

### Parameter

|                   |                                         |                                         |  |
|-------------------|-----------------------------------------|-----------------------------------------|--|
| <b>address</b>    | All port security related MAC addresses |                                         |  |
| <b>interfaces</b> | Interface status and configuration      |                                         |  |
|                   | <b>GigabitEthernet</b>                  | Gigabit ethernet interface to configure |  |
|                   | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z                         |  |

### Example

```
C62-050-30-A# show port-security
Port Security: Disabled
Rate Limit: 100 pps
C62-050-30-A#
```

## 16-29 power

Power over Ethernet (PoE) configuration.

### Syntax

```
show power inline
```

```
show power inline consumption
```

```
show power inline consumption interface GigabitEthernet <port_list>
```

```
show power inline interface GigabitEthernet <port_list>
```

### Parameter

|                          |                          |                                         |                                    |                                         |
|--------------------------|--------------------------|-----------------------------------------|------------------------------------|-----------------------------------------|
| <b>inline</b>            | Inline Power             |                                         |                                    |                                         |
|                          | <b>consumption</b>       | Power consumption                       |                                    |                                         |
|                          |                          | interfaces                              | Interface status and configuration |                                         |
|                          |                          |                                         | <b>GigabitEthernet</b>             | Gigabit ethernet interface to configure |
|                          | <b>&lt;port_list&gt;</b> | Port List X-Y,Z                         |                                    |                                         |
|                          | <b>interfaces</b>        | Interface status and configuration      |                                    |                                         |
| <b>GigabitEthernet</b>   |                          | Gigabit ethernet interface to configure |                                    |                                         |
| <b>&lt;port_list&gt;</b> |                          | Port List X-Y,Z                         |                                    |                                         |

### Example

```

C62-050-30-A# show power inline interfaces GigabitEthernet 1
Port State Status      Priority Class  Max.Power (Admin) Device
                                     (mW)
-----
gil Auto  searching high    class0 30000 (30000)  N/A

Port Overload      Short Current  Power Denied  MPS Absent      Invalid Sig.
-----
gil 0              0              0              0              0
C62-050-30-A#

```

## 16-30 qos

Show Quality of Service configuration.

### Syntax

**show qos**

**show qos** interface GigabitEthernet <port\_list>

**show qos** interfaces LAG <lag\_list>

**show qos** map {<cr>|<cos-queue>|<dscp-queue>|<precedence-queue>|

<queue-cos>|<queue-dscp>|<queue-precedence>}

**show qos** queueing

## Parameter

|                         |                                                      |                                         |
|-------------------------|------------------------------------------------------|-----------------------------------------|
| <b>interfaces</b>       | Interface status and configuration                   |                                         |
|                         | <b>GigabitEthernet</b>                               | Gigabit ethernet interface to configure |
|                         |                                                      | <b>&lt;port_list&gt;</b>                |
|                         | <b>LAG</b>                                           | IEEE 802.3 Link Aggregation interface   |
| <b>&lt;lag_list&gt;</b> |                                                      | LAG List X-Y,Z                          |
| <b>map</b>              | Configure the QoS maps                               |                                         |
|                         | cos-queue                                            | CoS to Queue mapping                    |
|                         | dscp-queue                                           | DSCP to Queue mapping                   |
|                         | precedence-queue                                     | IP Precedence to Queue mapping          |
|                         | queue-cos                                            | Queue to CoS mapping                    |
|                         | queue-dscp                                           | Queue to DSCP mapping                   |
|                         | queue-precedence                                     | Queue to IP Precedence mapping          |
| <b>queueing</b>         | Display quality of service (QoS) queuing information |                                         |

## Example

```
C62-050-30-A# show qos
QoS Mode: basic
Basic trust: cos
C62-050-30-A#
```

## 16-31 running-config

Running configuration.

### Syntax

**show running-config**

**show running-config** interface GigabitEthernet <port\_list>

**show running-config** interface LAG <lag\_list>

### Example

```
C62-050-30-A# show running-config
SYSTEM CONFIG FILE ::= BEGIN
! System Description: AETEK PoE SW C62-050-30-A Switch
! System Version: v2.0.1.3_vk
! System Name: C62-050-30-A
! System Up Time: 0 days, 5 hours, 40 mins, 32 secs
!
!
!
system name "C62-050-30-A"
ip address 192.168.11.199 mask 255.255.255.0
ip default-gateway 192.168.11.1
username "admin" encrypted password
MjEyMzJmMjk3YTU3YTVhNzQzODk0YTB1NGE4MDFmYzM=
!
!
!
!
!
!
!
spanning-tree mst configuration
  name "68:8D:B6:00:00:00"
!
!
!
!
--More--
C62-050-30-A#
```

## 16-32 smtp

Display SMTP configurations.

### Syntax

**show smtp**

**show smtp event**

#### Parameter

|              |                                               |
|--------------|-----------------------------------------------|
| <b>event</b> | Display smtp class of event enable or disable |
|--------------|-----------------------------------------------|

#### Example

```
C62-050-30-A# show smtp event
SMTP auth failed event : Enable
SMTP linkUpDown event  : Enable
SMTP cold-start event   : Enable
SMTP warm-start event   : Enable
SMTP D/I event          : Enable
SMTP D/O event          : Enable
SMTP PoE PD On/Off event: Enable
SMTP PoE PD Fault event : Enable
C62-050-30-A#
```

## 16-33 snmp

Display SNMP configurations.

#### Syntax

**show snmp**

**show snmp** {<community>|<engineid>|<group>|<host>|<trap>|<user>|<view>}

#### Parameter

|                  |                                              |
|------------------|----------------------------------------------|
| <b>community</b> | Display snmp class of trap enable or disable |
| <b>engineid</b>  | Display snmp class of trap enable or disable |
| <b>group</b>     | Display snmp class of trap enable or disable |
| <b>host</b>      | Display snmp class of trap enable or disable |
| <b>trap</b>      | Display snmp class of trap enable or disable |
| <b>user</b>      | Display snmp class of trap enable or disable |

|             |                                              |
|-------------|----------------------------------------------|
| <b>view</b> | Display snmp class of trap enable or disable |
|-------------|----------------------------------------------|

### Example

```
C62-050-30-A# show snmp
SNMP is disabled.
Community Name      Access Right
-----
Total Community Entries: 0
Server              Community Name  Notification Version  Notification Type
-----
Total Trap Entries: 0
C62-050-30-A#
```

## 16-34 spanning-tree

Show spanning tree protocol configuration.

### Syntax

**show spanning-tree**

**show spanning-tree** brief

**show spanning-tree** interface {GigabitEthernet <port\_list> | LAG <lag\_list>}

**show spanning-tree** interface {GigabitEthernet <port\_list> | LAG <lag\_list>} statistics

**show spanning-tree** mst <0-15>

**show spanning-tree** mst <0-15> interface {GigabitEthernet <port\_list> | LAG <lag\_list>}

**show spanning-tree** mst configuration

### Parameter

|                   |                                          |
|-------------------|------------------------------------------|
| <b>brief</b>      | Displays spanning-tree brief information |
| <b>interfaces</b> | Interface status and configuration       |

|               |                                  |                                         |                                    |                                         |                 |
|---------------|----------------------------------|-----------------------------------------|------------------------------------|-----------------------------------------|-----------------|
|               | <b>GigabitEthernet</b>           | Gigabit ethernet interface to configure |                                    |                                         |                 |
|               |                                  | <port_list>                             | Port List X-Y,Z                    |                                         |                 |
|               |                                  |                                         | statistics                         | Statistics for specified ports          |                 |
|               | <b>LAG</b>                       | IEEE 802.3 Link Aggregation interface   |                                    |                                         |                 |
| <lag_list>    |                                  | LAG List X-Y,Z                          |                                    |                                         |                 |
|               |                                  | statistics                              | Statistics for specified ports     |                                         |                 |
| <b>mst</b>    | Multiple spanning trees          |                                         |                                    |                                         |                 |
|               | <0-15>                           | Instance ID (0~15)                      |                                    |                                         |                 |
|               |                                  | <b>interfaces</b>                       | Interface status and configuration |                                         |                 |
|               |                                  |                                         | <b>GigabitEthernet</b>             | Gigabit ethernet interface to configure |                 |
|               |                                  |                                         |                                    | <port_list>                             | Port List X-Y,Z |
|               |                                  |                                         | <b>LAG</b>                         | IEEE 802.3 Link Aggregation interface   |                 |
|               |                                  |                                         |                                    | <lag_list>                              | LAG List X-Y,Z  |
| configuration | MST current region configuration |                                         |                                    |                                         |                 |

**Example**

```

C62-050-30-A# show spanning-tree
Spanning tree enabled mode MSTP
Default port cost method: long
Gathering information .....
##### MST 0 Vlans Mapped:
CST Root ID   Priority   32768
              Address    00:68:8d:b6:51:08
              This switch is root for CST and IST master
              Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
              Max hops   20

Name   State   Prio.Nbr   Cost   Sts   Role EdgePort   Type
-----
##### MST 1 Vlans Mapped: 1-4094
Root ID      Priority   32768
              Address    00:68:8d:b6:51:08
              This switch is the regional Root

Interfaces
Name        State     Prio.Nbr   Cost     Sts   Role EdgePort   Type
-----
gi7         enabled  128.7      20000    Frw  Desg No          P2P Intr
gi8         enabled  128.8      20000    Blk  Bckp No          P2P Intr
C62-050-30-A# show spanning-tree mst 1 interfaces GigabitEthernet 2
MST Port Information
=====
Instance Type : MSTI (1)
-----
Port Identifier : 128/2
Internal Path-Cost : 0 /20000
-----
Regional Root Bridge : 0/00:00:00:00:00:00
Internal Root Cost : 0
Designated Bridge : 0/00:00:00:00:00:00
Internal Port Path Cost : 20000
Port Role : Disabled
Port State : Disabled
-----
C62-050-30-A#

```

## 16-35 startup-config

Startup configuration.

### Syntax

```
show startup-config
```

### Example

```
C62-050-30-A# show startup-config
SYSTEM CONFIG FILE ::= BEGIN
! System Description: AETEK PoE SW C62-050-30-A Switch
! System Version: v2.03.04cu
! System Name: C62-050-30-A
! System Up Time: 0 days, 0 hours, 1 mins, 54 secs
!
!
!
system name "C62-050-30-A"
ip address 192.168.11.59 mask 255.255.255.0
ip default-gateway 192.168.11.254
ip dhcp server lease-time 0
username "admin" encrypted password OGM5NzY3N2U3Y2YyNWMwNzVknWEwZjhjOTA3ZGFhY2E=
!
!
!
!
!
power inline force-mode disable
spanning-tree mst configuration
  name "68:8D:B6:00:00:00"
!
!
!
--More--
C62-050-30-A#
```

## 16-36 storm-control

show storm-control configuration.

### Syntax

**show storm-control**

**show storm-control** interfaces GigabitEthernet <port\_list>



### Example

```
C62-050-30-A# show username
Priv  | Type  | User Name | Password
-----+-----+-----+-----
admin | secret | admin    | MjEyMzJmMjk3YTU3YTVhNzQzODk0YTB1NGE4MDFmYzM=
C62-050-30-A#
```

## 16-38 users

Information about users.

### Syntax

**show users**

### Example

```
C62-050-30-A# show users
Username      Protocol      Location
-----
admin         console       0.0.0.0
C62-050-30-A#
```

## 16-39 version

System hardware and software status.

### Syntax

**show version**

### Example

```

C62-050-30-A# show version
Loader Version   : 2.0.0.1
Loader Date     : Sep 27 2022 - 14:14:01
Firmware Version : 2.03.04
Firmware Date   : Jan 10 2023 - 03:46:30
C62-050-30-A#

```

## 16-40 vlan

VLAN information.

### Syntax

**show vlan**

**show vlan** <VLAN-LIST>

**show vlan** <VLAN-LIST> interfaces GigabitEthernet <port\_list> membership

**show vlan** <VLAN-LIST> interfaces LAG <lag\_list> membership

**show vlan** dynamic

**show vlan** static

### Parameter

|                         |                                    |                                         |                 |
|-------------------------|------------------------------------|-----------------------------------------|-----------------|
| <b>interfaces</b>       | Interface status and configuration |                                         |                 |
|                         | <b>GigabitEthernet</b>             | Gigabit ethernet interface to configure |                 |
|                         |                                    | <b>&lt;port_list&gt;</b>                | Port List X-Y,Z |
|                         | <b>LAG</b>                         | IEEE 802.3 Link Aggregation interface   |                 |
| <b>&lt;lag_list&gt;</b> |                                    | LAG List X-Y,Z                          |                 |
| <b>dynamic</b>          | Display dynamic entries            |                                         |                 |
| <b>static</b>           | Display static entries             |                                         |                 |

### Example

```
C62-050-30-A# show vlan
```

```
VID | VLAN Name | Untagged Ports | Tagged Ports | Type  
-----+-----+-----+-----+-----  
1 | default | gi1-28,lag1-8 | --- | Default  
C62-050-30-A#
```

Setup SSL host keys.

### Syntax

**ssl**

### Parameter

### Example

```
C62-050-30-A# ssl
Generating a RSA private key
.....+++++
.....+++++
writing new private key to '/mnt/ssh/ssl_key.pem_tmp'
-----
C62-050-30-A#
```

Terminal configuration.

### Syntax

**terminal length** <0-24>

### Parameter

|               |                 |                                |
|---------------|-----------------|--------------------------------|
| <b>length</b> | Terminal length |                                |
|               | <0-24>          | Length value. 0 means no limit |

### Example

```
C62-050-30-A# terminal length 24
```

Trace route to network hosts.

### Syntax

**traceroute** <hostname>

**traceroute** <hostname> max\_hop <2-255>

### Parameter

|          |                                             |                                        |                   |
|----------|---------------------------------------------|----------------------------------------|-------------------|
| hostname | The IP address or hostname address to trace |                                        |                   |
|          | max_hop                                     | The number of maximum hop.(Default:30) |                   |
|          |                                             | <2-255>                                | Maximum hop range |

### Example

```
C62-050-30-A# traceroute 1.1.1.1 max_hop 2
traceroute to 1.1.1.1 (1.1.1.1), 2 hops max, 38 byte packets
 1 192.168.11.1 (192.168.11.1) 0.000 ms 0.000 ms 0.000 ms
 2 10.135.91.1 (10.135.91.1) 0.000 ms 0.000 ms 0.000 ms
C62-050-30-A#
```